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Web Address: http://nj.gov/health/surv/nj_ohi.shtml

Brief Overview

Occupational health indicators (OHIs) provide a snapshot of the health of workers in New Jersey (NJ). These indicators can be used by public health officials to track work-related adverse health effects and their causes.

Major Accomplishments/ Outcomes

Heavy Metals Database

Staff worked with the NJ Office of Information Technology to update and improve the data requirements for the new heavy metals database to capture work-related heavy metal exposure, thus allowing staff to better capture adult blood lead data for OHIs. NJ state regulations require reporting of all blood lead values from clinical laboratories, physicians, and hospitals (N.J.A.C. 8:44-2.11, N.J.A.C. 8:57-3.1., and N.J.A.C. 8:57-3.2). The Adult Blood Lead project collected 1,218 cases of employees (age 16 and older) with blood lead level ≥ 10 $\mu\text{g}/\text{dl}$ in 2010; 2,195 cases in 2011; 1,746 cases in 2012; and 1,135 cases in 2013. With the completion of the database staff now plan to continue surveillance, conduct case follow-up and interventions among adults.

EpiCenter (Syndromic Surveillance)

OHS staff began exploring EpiCenter as a real-time surveillance system for occupationally related exposures. EpiCenter is a statewide Syndromic surveillance system used by state and local public health agencies to detect, track, and characterize health events such as pandemic influenza, outbreaks, environmental exposures, and potential bioterrorism in real-time. OHS staff currently receives automatic electronic notifications whenever there are three or more cases of chemical exposures seen in emergency departments in NJ. OHS staff quickly reviews the cases using the secure EpiCenter website, and contacts the emergency department staff to obtain additional information to determine if it is occupational and conduct follow-up as needed. In the past year, occupational events detected via EpiCenter included: an exposure to toluene vapor at a nail polish manufacturing plant; six cases of pesticide exposure at a repacking facility; and carbon monoxide poisoning of two police officers due to exhaust problems in their vehicle. This experience has shown that the EpiCenter chief complaint reporting system can yield real-time knowledge of incidents and local conditions that OHS can assist with and identify prevention opportunities. This has also provided an opportunity for the OHS Unit to partner with the NJDOH Public Employees Occupational Safety and Health Program (PEOSH) to provide them with real-time data on work-related injuries occurring among public employees in NJ.

NJ Poison Information and Education System (NJPIES)

The OHS Unit is also collaborating with NJPIES as an additional data source. NJPIES was created by legislation (N.J.S.A. 26:2-119 et seq.) and began service on February 1, 1983, replacing 32 Poison Control Centers located in NJ hospitals. Its mission is to provide treatment and the provision of information concerning poisons, drugs, and targeted health issues through telephone management, consultation, education, and research. Occupational exposures are reportable under NJ state law. Thus, one of the areas NJPIES codes for is occupational exposure. NJPIES currently provides cases of occupational poisonings to the OHS Unit on a weekly basis in an effort to further enhance the classification and capture of work-related non-fatal injuries with possible improved efforts in prevention.

NIOSH

New Jersey has also joined other occupational health surveillance states in an effort to add the NIOSH Industry and Occupation (I/O) module into the NJ Behavioral Risk Factor Surveillance System (BRFSS) questionnaire. New Jersey began collecting Industry and Occupational data during the 2012 NJ BRFS questionnaire and has continued to collect these data through 2015.

CSTE Occupational Health Subcommittee

The New Jersey Occupational Health Indicator Coordinator has been serving as the state-representative co-chair for the CSTE/NIOSH Occupational Health Indicators Work Group.

Meetings

Staff attended the International Society for Disease Surveillance (ISDS) 2014 Conference in Philadelphia, PA in December. Staff also attended the Council of State and Territorial Epidemiologists (CSTE) 2015 Conference in Boston, MA in June. The conferences are intended to help build capacity for public health surveillance and included strategies for incorporating the latest approaches, methodologies, and results into data driven programs.

Northeast States

OHS Unit staff attended the 2015 Northeast Regional Occupational Disease and Injury Surveillance Conference in Chester, CT, attended by 40 representatives from NIOSH, Yale University, UConn Health Center, UMass Lowell, and five surveillance states (CT, MA, NH, NJ, NY, including NYC and the NY Center for Agricultural Medicine). Staff made presentations on NJ's occupational surveillance activities during the previous year, NJ's experience with using EpiCenter real-time data for surveillance and provided an update on the Hurricane Sandy grant activities.

Major Outputs/Products

NJ SHAD (State Health Assessment Data) System

OHS staff continues to work with NJDOH Environmental Public Health Tracking (EPHT) researchers to incorporate OHIs into the NJDOH online indicator-based information system, NJ State Health Assessment Data (SHAD). This will allow for increased visibility and integration into mainstream public health as the OHIs are now featured with all the leading NJ health indicators. Profiles with data analysis for six OHIs have been updated with 2011 data and have been published on the SHAD website.¹ Three OHIs, "Fatal Work-Related Injuries (OHI #3)," "Mortality from or with Pneumoconiosis (OHI #10)," and "Elevated Blood Lead Levels among Adults (OHI #13)" were incorporated into Healthy NJ 2020 as Occupational Health and Safety objectives and referenced accordingly in the NJ SHAD indicator system.

NJDOH Occupational Health Indicators Webpage

Staff have completed trend analyses for all 19 NJ indicators from 2000-2011 and the data has been updated on the OHI webpage. Trend analysis shows that from 2000-2011 rates of asbestosis hospitalizations continue to be higher in NJ (170.0-277.0 hospitalizations per million residents) than the US (33.2-103.2 hospitalizations per million residents). Asbestosis also resulted in the greatest number of deaths from or with pneumoconiosis, over 700 from 2000-2011. This information will be updated annually. The webpage provides stakeholders and the public with quick access to comprehensive NJ occupational health and safety statistics. Links to related topics are also featured on the page.

OHI Multi-State Report

The 2011 OHIs have been submitted to NIOSH and are posted to the CSTE website. The OHS Unit submitted 18 of the 20 OHIs for 2012 to NIOSH including a new OHI #22 (Work-Related Severe Traumatic Injury Hospitalizations) for incorporation into their multi-state OHI report posted on the CSTE Website. Data are not yet available for OHI #10 (Mortality from or with Pneumoconiosis) and OHI #12 (Incident of Malignant Mesothelioma). Examples of NJ OHIs are provided in Tables 1 and 2 below.

¹ NJ SHAD available at: <http://www4.state.nj.us/dhss-shad/indicator/Introduction.html>

Table 1. New Jersey Employment Demographics, 2011-2012

Demographics	2011	2012
Percentage of civilian workforce unemployed	9.4	9.5
Percentage of civilian employment self-employed	4.6	5.1
Percentage of civilian employment in part-time jobs	18.0	17.9
Percentage of civilian employment by number of hours worked		
<40 hours	32.8	30.4
40 hours	46.8	46.2
41+ hours	20.4	20.3
Percentage of civilian employment by sex		
Males	53.5	58.4
Females	46.5	52.0
Percentage of civilian employment by age group		
16 to 17	0.9	1.1
18 to 64	93.9	92.3
65+	5.5	6.6
Percentage of civilian employment by race/ethnicity		
White	78.4	76.6
Black	12.3	12.6
Hispanic origin	19.1	19.1
Other	9.4	10.8

Source: NJ Department of Labor and Workforce Development

Table 2. Selected 2011 and 2012 New Jersey Occupational Health Indicators

Occupational Health Indicator	2011	2012
Annual average # of adults (civilian non-institutionalized) working in NJ ¹	4,159,000	4,158,000
Estimated annual total number of work-related injuries and illnesses ²	76,700	80,9000
Annual number of work-related traumatic fatalities ¹	99	92

Sources: ¹National Bureau of Labor Statistics, ²NJ Department of Labor and Workforce Development

In an effort to enhance OHI data analysis, OHS staff is collaborating with NIOSH to explore, pilot test, and develop guidance for all indicator states in conducting temporal/trend and other in-depth analysis of occupational health indicators. Staff has also recently pilot tested the sub-state level guidance manual. Both manuals should be completed by fall 2015.

Project Evaluation

Staff recently began using the OHI Evaluation Tracking Tool designed by CSTE to collect information to assess the value of generating OHIs. The tool has shown that generating the NJ OHIs led to new surveillance activities, such as incorporating EpiCenter and NJPIES to enhance the classification and capture of work-related non-fatal injuries. Utilizing the results from the data analyses, staff evaluated the Hospital Discharge (HD) and Emergency Department (ED) data sources and the OHI data systems to ensure that the surveillance systems operates efficiently, are serving a useful public health function and meeting stated objectives. This has led to improved source data quality. For example, the creation of a new heavy metals database that more efficiently captures adult blood lead levels. The tool has also shown that generating the NJ OHIs has helped open dialogue for collaboration with existing partners such as Public Employee Occupational Safety and Health and EPHT and has led to new partnerships with NJPIES. The OHI data has been published on the NJDOH occupational website and in larger state databases such as NJSHAD; has been published in larger state reports such as Healthy NJ 2020; and has been used to respond to internal department requests which have helped raise awareness of occupational health in NJ.

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Brief Overview

Occupational exposure to respirable crystalline silica (RCS) is a serious but preventable health hazard. Exposure to RCS occurs in construction, mining, manufacturing and other industries and can result in silicosis and other lung diseases. The overall goals of the New Jersey Department of Health's (NJDOH) Silicosis Surveillance Project are to: identify potential cases of silicosis; classify cases in accordance with established case confirmation criteria; evaluate exposures associated with the cases; identify new industries, occupations, and causes associated with this condition; and implement interventions to prevent silicosis in New Jersey.

Highlights from Analysis of Silicosis database

The Occupational Health Surveillance Unit (OHS) Unit processed four new and 12 open silicosis reports in 2015, resulting in confirmation of nine cases of silicosis. Annual case data were submitted to NIOSH. Cases were distributed in three industry sectors historically associated with NJ silicosis cases: manufacturing (n=5), construction (n=3), and mining (n=1). Two cases were under 50 years old at the time of case confirmation. One was a sandblaster in a concrete product manufacturing plant and one a self-employed tile contractor. This supports the continued need for NJ to maintain efforts to improve use of silica control measures in these industries with a focus on the construction industry where numbers of cases have recently been on the rise.

Major Accomplishments/ Outcomes

Identifying and Taking Action to Address a New U.S. Silicosis Hazard

At the April 2013 NIOSH/State Occupational Lung Disease Surveillance Meeting, OHS staff initiated discussion about new clusters of silicosis cases reported in the literature among engineered stone countertop fabricators in Israel and Spain. Production and use of these artificial stone materials is rapidly expanding worldwide, and products are now manufactured, fabricated and installed in the U.S. The need to investigate this hazard was recognized by NIOSH, OSHA and the other surveillance states. NJ OHS Unit staff compiled a background report; identified existing hazard control efforts implemented by manufacturers and the stone fabrication industry and disseminated this information to state partners and NIOSH. As a result, NIOSH and the Occupational Safety and Health Administration (OSHA) partnered to develop a joint OSHA/NIOSH Hazard Alert on this topic. On February 18, 2015, the agencies released the publication entitled: "OSHA/NIOSH Hazard Alert: Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation."

In advance of the joint Alert, OHS staff, along with the NIOSH Division of Respiratory Disease Studies staff and surveillance state partners, drafted and posted an entry to the NIOSH Science Blog entitled "Silica Hazards from Engineered Stone Countertops." The Blog was posted in March 2014.¹ A resulting impact of the blog posting was the reporting of the first U.S. silicosis case of this type to the Texas Department of Health by an occupational medicine physician. OHS staff worked with the reporting physician, NIOSH staff and other silicosis surveillance partners to author a case report entitled: Notes from the Field: Silicosis in a Countertop Fabricator – Texas, 2014. It was published in the February 13, 2015 issue of the Center for Disease Control's Morbidity and Mortality Weekly Report.² In addition, the Texas Department of Health submitted a request for technical assistance in the form of a NIOSH health hazard investigation which is currently in

¹ NIOSH Science Blog, "Silica Hazards from Engineered Stone Countertops" available at: <http://blogs.cdc.gov/niosh-science-blog/2014/03/11/countertops/>

² CDC MMWR "Notes from the Field: Silicosis in a Countertop Fabricator – Texas, 2014" available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6405a5.htm?s_cid=mm6405a5_w

progress at the Texas employer site. Goals are to investigate respirable silica hazards and the health of coworkers of the case.

Over the past two years, OHS staff developed relationships with industry partners to explore collaborations to reduce dust exposure in fabrication shops. OHS staff has also been collaborating with engineers from the NIOSH Division of Applied Research and Technology on a proposal for a NIOSH intramural project entitled: Engineering Control of Silica Dust from Stone Countertop Fabrication and Installation. The project was funded in January 2015 and OHS staff brought together industry partners and NIOSH engineers to design and evaluate portable, affordable dust controls to prevent exposure. Industry partnerships are critical for understanding work processes and hazards and accessing fabrication shops to evaluate proposed controls.

Potential Outcomes/Outputs

▪ *Expanding Efforts to Characterize Miner Health*

From 1979 to the present, mining has been the second leading industry sector associated with silicosis cases in New Jersey. OHS staff are working in several new ways to gain a better understanding of dust hazards in NJ mines and miners' health in general. In 2014, OHS staff brought together NJ Department of Labor and Workforce Development (DOLWD) and faculty from the Rutgers University School of Public Health, which is funded by the Alpha Foundation for the Improvement of Mine Safety and Health. Together, the three groups have launched a survey project that will gather information about NJ miner demographics, work characteristics and smoking habits. Surveys will be administered during training sessions. The goal will be to develop industry-specific health interventions. National survey data show that the prevalence rates of smoking and smokeless tobacco use in miners is high. It is well-recognized that the dual exposures to occupational dust and smoking result in deficits in lung function. Less well explored are the use patterns and health outcomes of smokeless tobacco and electronic cigarettes. Strategies are needed to characterize and reduce these contributing health risks. This project will lay the basis for ongoing joint work in other dust-exposed NJ worker populations that will lead to industry-specific health interventions.

Also in collaboration with Rutgers University School of Public Health, the OHS Unit will be exploring the use of existing data systems to study workplace-related risk factors for respiratory disease and injury among NJ nonmetal miners. While there is a wealth of articles describing adverse health outcomes in underground coal miners in the US, there is a little information on the impact of work and health on other miners in the US. In NJ there is a small but stable surface aggregate mining industry with on average 85 active mines operating a year (23 stone mines, 62 sand and gravel mines). Using a cross-sectional study design, the study will link de-identified occupational health surveillance data to the following Mine Safety and Health Administration datasets: mine employment demographics, reportable injuries and illnesses, dust exposure levels, violations and citations. Institutional Review Board approvals have been granted by Rutgers University and the NJ Department of Health, datasets are linked and analysis is proceeding. This knowledge can be used to guide interventions to reduce the burden of these diseases and to develop hypotheses for further investigations.

- Collaborate with NIOSH and silicosis surveillance states to widely disseminate the "OSHA/NIOSH Hazard Alert: Worker Exposure to Silica during Countertop Manufacturing, Finishing and Installation" and the MMWR Case Report "Notes from the Field: Silicosis in a Countertop Fabricator-Texas, 2014."
- Participate in design, field testing and evaluation of practical effective dust controls in stone countertop fabrication shops.
- Collaborate with stone fabrication trade journal publishers to develop articles describing practical controls that can be implemented for the tasks and tools that present the greatest risk for silica dust exposure.

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- Work with OSHA Region II to reconvene the NJ Silica Outreach and Research Alliance in order to continue the longstanding focus of this group on reducing exposure to silica dust in the construction industry and consider a shift in focus from highway work to silicosis prevention in the construction trades.

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Brief Overview

The NJ Work-Related Asthma (WRA) Surveillance project identifies potential cases of WRA; classifies cases in accordance with established case confirmation criteria; evaluates exposures associated with the cases; identifies new industries, occupations and causes associated with this condition; and implements interventions to prevent WRA in New Jersey.

Highlights from Analysis of WRA Database

Aggregate data was submitted to the Data Coordination Center of the Consortium of State-based Surveillance using the core variables that have been established under the WRA surveillance project. A total of 659 confirmed cases of WRA have been identified from 1993-2011. Hospital Discharge (HD) and Emergency Department (ED) data were the primary sources for case ascertainment (60%). Trend analysis and narrative from 1993-2011 have been posted to the new NJ WRA website.¹

- 659 cases of WRA were confirmed from 1993-2011
 - 54% (357) were female; 63% (415) were white; 12% (77) were of Hispanic origin; and 31% (209) ranged in age from 35-49 years
 - 44% (289) of these cases were classified as Occupational Asthma (Table 1)
 - The largest percentage of cases was in the Health Services industry (18%), which may be due to an increased use of cleaning agents, formation of mold (in damp work environments) and generation of indoor air pollutants
 - The greatest number of cases was among those that worked in Production occupations (14%), which included machine operators, assemblers, and laborers
 - The agents that are most commonly associated with WRA are Smoke, 7% (48); Chemicals, NOS, 7% (46); and Indoor Air Pollutants, 4% (28)
- 64 new cases of WRA were confirmed for 2011
 - 56% (36) were female; 72% (46) were white; 9% (6) were of Hispanic origin; and 42% (27) ranged in age from 18-34 years
 - 30% (19) of these cases were classified as Work-Aggravated Asthma
 - The greatest number of cases was among those that worked in General Medical and Surgical Hospitals, 13% (8) and Police Protection, 11% (7)
 - Occupations with the highest number of confirmed WRA cases were Emergency Medical Technicians and Paramedics, 9% (6)
 - The agent that was most commonly associated with confirmed cases of WRA was smoke, 14% (9)

Classification of Confirmed WRA Cases in New Jersey, 1990-2011	No.	%
Occupational asthma	289	43.9
Work-aggravated asthma	127	19.3
Reactive airways dysfunction syndrome (RADS)	73	11.1
Insufficient data to classify	170	25.8
Total	659	100

¹NJDOH WRA website available at: <http://nj.gov/health/eoh/survweb/wra/statistics.shtml>

Major Accomplishments/ Outcomes

Industrial Hygiene Visit/Consultations

An industrial hygiene consultation was provided for an elementary school following exposure to a polyurethane floor finishing product that resulted in WRA, namely isocyanates (an asthmagen by the Association of Occupational and Environmental Clinics). A follow-up report is being drafted and includes recommendations on hazard communication, respirators and medical surveillance.

Two industrial hygiene reports/letters were issued to separate hospitals following visits on exposure to floor care products and included recommendations on hazard communication and medical screening.

Public Employees Occupational Safety and Health (Mold and WRA)

The Occupational Health Surveillance (OHS) Unit, in collaboration with the Public Employees' Occupational Safety & Health Unit (PEOSH), conducted five site visits following employee complaints on mold and asthma symptoms (one school, two office buildings, and two long-term hospitals). OHS staff distributed educational packets to the employees and employers addressing the development of WRA due to mold exposure. The packets included recommendations regarding personal protective equipment, respiratory protection, hazard communication training and green cleaning.

In 2013, OHS staff completed a site visit at a police department with severe mold growth on the air handling units. An employee questionnaire on mold and WRA was developed specifically for the employees at this site and disseminated in 2014. Fifty-four of the employees voluntarily completed the survey. Preliminary results show that 46 (85%) of the participants suffered from frequent sinusitis; 43 (80%) had frequent coughs; and 30 (56%) complained of shortness of breath. Forty-four (81%) are currently taking asthma or allergy medications as a result of their symptoms. Fifteen (28%) indicated a history of asthma. To confirm WRA cases, medical records are being obtained from individuals who had a history of asthma and saw a physician while working at the police department. Following PEOSH's citation for microbial contamination, the employer removed the mold and replaced the HVAC system. A follow-up survey was sent to the original 54 respondents to determine if there was any improvement in their health after the recommendations were implemented. Preliminary results show that there was some improvement in the overall health of the employees. A poster, Case Study: Mold Contamination in the Workplace and Associated Adverse Health Outcomes was presented at the 2015 CSTE Annual Conference in June.

Public Employees Occupational Safety and Health (PEOSH)/Indoor Air Quality (IAQ)

The OHS Unit continued to participate in the NJ Association of Designated Persons Training/Workshops.² Over the past year, eight training workshops were held for school facility personnel and school nurses as part of the Designated Persons Training requirements in the PEOSH IAQ Standard. The OHS Unit trained 70 school nurses and 345 facility workers focusing on reducing asthma triggers in schools.

NJ School Buildings & Grounds Association (NJSBGA) Annual Custodial Summer Workshop

OHS staff participated in two summer custodial workshops entitled 'Tool Box Tuesdays' in collaboration with NJSBGA. The workshops were targeted for custodial and maintenance workers and focused on reducing asthma triggers found in school ventilation systems and also covered general indoor air quality issues. Approximately 40 people attended.

Major Outputs/Products

May Asthma Awareness Month

Continuing the annual outreach initiative, 110 physicians and 65 occupational health clinics were electronically sent an updated educational outreach letter via local health departments, medical associations/practices, and physicians listed in the WRA database.

Publications

² Designated Persons training information available at: http://www.nj.gov/health/peosh/documents/iaq_nurse_2.pdf

The OHS Unit is a co-author on the following NIOSH/state-partner manuscripts and peer-reviewed articles: "Diisocyanates and WRA: Findings from 1993-2008," (In review at the *American Journal of Industrial Medicine*); Rosenman KD, Millerick-May M, Reilly MJ, Flattery J, Weinberg J, Harrison R, Lumia M, Stephens AC, Borjan M. Swimming facilities and work-related asthma. *J Asthma*. 2014 Aug 26:1-7; and Cleaning and Disinfecting Environmental Surfaces in Healthcare: Towards an Integrated Framework for Infection and Occupational Illness Prevention: *American Journal of Infection Control* [0196-6553] Quinn, Margaret yr:2015

Potential Outcomes/Outputs

- The OHS Unit completed the first draft of a green cleaning educational brochure and alert.
- A Health Alert on the development of WRA among fire-fighters is being planned after an increase of firefighters/fire protection/smoke related WRA cases in 2010 were observed.
- An email blast/survey, directed towards nurses who attended the PEOSH IAQ Designated Persons training workshop was drafted and will be disseminated to evaluate the impact of the training.

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Brief Overview

The overall goal of the New Jersey Fatality Assessment and Control Evaluation (NJ FACE) project is to maintain and expand a surveillance system for identifying work-related fatal injuries in New Jersey. FACE researchers seek to prevent work-related fatal injuries by identifying and investigating work situations at high risk for injury, and then formulating and disseminating prevention strategies to those who can intervene in the workplace.

Highlights from Analysis of NJ FACE database

- 2,470 workers were fatally injured in NJ from 1990-2013
 - The average annual rate of fatal work-related injuries was 2.7 deaths per 100,000 workers. There has been no consistent increase or decrease in work-related fatalities since 1990
 - 94% (2,331) were male; 74% (1,817) were white; 18% (451) were of Hispanic origin; and 25% (624) ranged in age from 40-49 years
 - The three leading causes of death were MVA or Transportation, 30% (707); Falls, 17% (415); and Homicide/Assaults, 14% (338)
 - Trend analysis has been completed from 1990-2013 and narrative is currently being written and will be incorporated into the new FACE data website
- 97 workers were fatally injured in NJ in 2013
 - 96% (93) were male; 73% (71) were white; 18% (17) were of Hispanic origin; and the average age was 46 years
 - Landscaping Services, Gasoline Stations with Convenience Stores, and General Freight Trucking, Long-Distance, Truckload had the greatest number of fatalities
 - The annual crude fatality rate increased from 2012 (2.2 per 100,000 full-time employees) to 2013 (2.5 per 100,000 full-time employees)

Major Accomplishments/ Outcomes

Falls in NJ Residential Construction

Staff conducted three focus groups and administered surveys to determine barriers to the use of fall protection in small (<10 employees) construction companies in NJ in 2013. Results from this study confirm that falls remain a concern among small residential construction workers in NJ. Barriers to the use of fall protection equipment such as availability, lack of training, ease of use and lack of employer oversight were identified during the focus group exercises. A manuscript "Assessing Barriers to the Use of Fall Protection in small Residential Construction Companies in New Jersey" has been submitted for publication and is currently under review by *New Solutions: A Journal of Environmental and Occupational Health Policy*.

NIOSH Impact

NJ FACE developed a hazard alert based on two work-related fatalities that involved falls through temporary wooden platforms on highway bridge deck construction worksites.¹ The alert highlights the two cases, presents data on the number of construction fatalities in NJ, provides detailed recommendations on prevention and summarizes the impact of the alert and resulting outcome where a group of stakeholders worked to change the NJ Turnpike Authority's contract specifications to mandate safer temporary platforms in bridge deck repair jobs. The Alert was reviewed and endorsed by

¹ New Jersey Department of Health, FACE Project; Hazard Alert, Temporary Wooden Bridge Platforms. Available at: http://nj.gov/health/surv/face/documents/nj_planksfalls.pdf. Accessed July 2, 2014.

the New Jersey Health and Safety Laborers' Fund, and the Center for Construction Research and Training. FACE staff developed a NIOSH Impact Sheet regarding this project, the Impact Sheet is posted on NIOSH's webpage.²

FACE Report used during OSHA Training

NJ FACE Report, entitled, "Hispanic Construction Worker Wearing Fall Protection Dies after Falling 40' from Roof" is now being used as a case study in the Atlantic Occupational Safety and Health Administration (OSHA) Training Center (at Rutgers University) course # OSHA-3115; Fall Protection. The report, which can be found at <http://www.nj.gov/health/surv/documents/09nj099.pdf>, details an incident in which a worker, who was installing corrugated metal roof decking on a large warehouse, fell. Although the victim was wearing fall protection, the anchor to which he was attached was not properly installed. The weight of his fall pulled the anchor free from the roof and he fell 40' to the ground below. During the OSHA course, the students are given a copy of the report without the recommendations; they break into groups, read the report and try to develop prevention ideas and formulate recommendations.

Major Outputs/Products (in progress)

Committee for the Advancement of Arboriculture

NJ FACE staff continues to collaborate with the NJ Committee for the Advancement of Arboriculture (CAA). The CAA reviewed and endorsed the OHS Unit's updated Tree and Wood Chipper hazard alerts, which includes hazard awareness and recommendations regarding post-storm cleanup. NJ Staff attended the 2015 Garden State Tree Conference, and set up booths to disseminate hazard alerts. NJ Staff presented an overview of this on the NIOSH-OSHA Liaison and Information Exchange on April 16th.

NJ FACE Adult School Crossing Guard Project

NJ FACE staff continue to serve as members of the Crossing Guard Working Group Meeting, in which stakeholders address the health and safety needs of crossing guards and are in the process of developing a standardized, state-wide training program.

NJ FACE Report Highlighted

The Safety and Health Magazine, National Safety Council, March 2015 edition highlighted a NJ FACE report, FACE Value, Worker Killed by Falling Tree Branch.³ This investigation report described an incident in which a worker was struck by a tree branch that had been cut. The worker walked into the exclusion zone (drop zone) while a worker in the tree was trimming a large branch.

Fatality Investigations initiated or completed in Federal Fiscal Year 2014

- 13-NJ-15- Fall: A laborer fell approximately 40' to the concrete below while clearing stones from a flat roof when he stepped on a portion of the roof that gave way.
- 13-NJ-49 – Fall: A warehouse laborer died after falling off a raised forklift, 17' to the concrete below.
- 13-NJ-59 – Chemical Exposure: A laborer was overcome by organic vapor after opening the cover of a tank of toluene at a manufacturing plant.
- 14-NJ-05 - Electrocution: A tree worker was electrocuted while trimming a branch with a pole saw; the saw contacted a nearby energized power line.
- 14-NJ-10 – Crushed by: A foreman for a steel warehouse was crushed to death when an unstable pile of steel I-beams fell on top of him.

² DHHS (NIOSH) Publication Number 2015-190, Resources Page. Available at: <http://www.cdc.gov/niosh/docs/2015-190/default.html> . Accessed July 2015.

³ National Safety Council, Safety and Health Magazine. March 2015 Volume 191: Edition 3. Available at <http://viewer.zmags.com/publication/b18b9cae#/b18b9cae/54>. Accessed March 9, 2015.

- 14-NJ-75 – Machine related: A day laborer was killed when the bucket of a backhoe struck him in the head. The operator of the backhoe was swinging the boom, but did not see the worker standing near the bucket.
- 15-NJ-10 – Struck by/Machine related: A sanitation worker was killed when a garbage truck backed over him.
- 15-NJ-12 – Struck by: a maintenance worker at a food-manufacturing facility was killed when a 600-lb electrical cabinet he was working on fell over and crushed him

Project Evaluation

Along with the updated Solid Waste Hazard Alert, a survey was mailed to evaluate the impact of the educational outreach. To date, 335 surveys have been returned (29% response rate). Impact evaluation results are being completed. There was a request for 2,324 hazard alerts (1950 English and 374 Spanish) by 144 hauling companies.