

**Michigan Annual Report
2015 - 2016**

Annual Report of Accomplishments and Outcomes, July 2015– June 2016 – Fundamental

Michigan State University/Michigan Department of Health and Human Services (MDHHS)
/Michigan Department of Licensing and Regulatory Affairs,
Enhanced Program in Occupational Injury and Illness Surveillance
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The primary activities of the Michigan Fundamental program were:

- To collect annual data for occupational health indicators (OHIs)
- To conduct surveillance for work-related amputations, burns, crushing injuries, skull fractures, hospitalized injuries, heavy metal and carbon monoxide poisoning.
- To maintain and improve infrastructure and data systems for surveillance.

MAJOR ACCOMPLISHMENTS AND OUTPUTS

Occupational Health Indicators

- Michigan's OHI data for 2013 were compiled and submitted to CSTE.
- The "How to Guides" for OHI's #10, #12 and Employment Demographics were updated.
- Tom Largo participated in two OHI Workgroup conference calls, continued to provide input in "Occupational Health Indicator Trend Analysis Guidance," pilot-tested draft recommendations for performing sub-state analyses of Occupational Health Indicators and provided feedback to authors.

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Surveillance for work-related amputations, burns, crushing injuries, metals, skull fractures, lead, and carbon monoxide poisoning– number of reports received/confirmed 6/2015-6/2016:

- There were 1,460 amputation reports received, of which 519 were confirmed as work-related. There were 3,068 burn reports received, of which 881 were confirmed as work-related. There were 2,790 skull fracture reports received, of which 212 were confirmed as work-related. There were 1,082 crushing injury reports received, of which 543 were confirmed as work-related. There were 1,301 hospitalized injuries reports received where worker compensation was the payer, of which 336 were confirmed unique hospitalized reports. There were 47 elevated arsenic, 18 elevated mercury and 12 elevated cadmium metals reports received for 61 individuals. There were 2,205 blood lead reports ≥ 5 $\mu\text{g/dL}$ received on 1,603 individuals.
- Data collection and entry for 2014 calendar year case reports for carbon monoxide poisoning was completed, and this is the last year of CO surveillance; it included 659 CO cases, but reporting was incomplete because of missing reports from a number of hospitals.

Investigations

- Amputation investigations were completed at five facilities. The total number of citations was 10; the median 1. The total amount of fines assessed was \$43,150; the median \$2,500. Burn investigations were completed at 5 facilities; 3 facilities received 6 citations with \$2,150 in penalties. Crushing injury investigations were completed at 3 facilities; the facilities received 4 citations with \$6,750 in penalties. Work-related hospitalization investigations were completed at 17 facilities; 13 facilities received 27 citations with \$20,450 in penalties. One lead investigation was completed. The facility received eleven lead-related and five non-lead-related citations.

Surveillance infrastructure

- We continued to maintain the web-based occupational disease (OD) reporting system, a toll free number for phone reporting and an automated occupational disease reporting system which has been developed for the electronic medical record.
- We continued to promote and remind health care providers of the reporting requirement through our quarterly newsletter, "Project SENSOR News," which has a mailing list of approximately 3,000 of which approximately 75% are physicians.
- Dr. Rosenman and Ms. Reilly met with the Director and staff of the Workers' Compensation Agency to facilitate ongoing collaboration.
- We worked with staff at the State's Poison Control Center to ensure continued reporting of all work-related calls.
- With the assistance of a CDC Public Health Associate we completed an analysis of the frequency of completed information about occupation and industry in the Michigan Department of Health and Human Services communicable disease database for selected infectious diseases with a potential for occupational causation or transmission and presented findings at 2 conferences.
- Because of the lead water contamination emergency in Flint Michigan, the number of adults tested for lead increased dramatically in early 2016. At the request of MDHHS, MSU is conducting follow-up interviews with individuals with elevated blood lead levels of 5 ug/dL and greater who live in Flint.
- We were active in multi-state collaborations to promote occupational health surveillance:
 - Dr. Rosenman was the lead of the CSTE Occupational Health Surveillance Workgroup.
 - Ms. Stanbury continued to be involved in the process to have non-infectious, nationally notifiable diseases published in the annual MMWR surveillance summaries. The 2015 annual report was published and the 2016 summary is underway.
 - Mr. Largo was active in planning the occupational component of the 2016 CSTE annual meeting.

Materials Development, Publications, Presentations and Other Outreach

- Work-Related Burns in Michigan: Fourth Annual Report 2013. 2/1/2016 (www.oem.msu.edu)
- Heavy Metals Surveillance in Michigan: Eighth Annual Report (January-December 2014). 7/31/2015 (www.oem.msu.edu)
- 2012-2013 Annual Report on Blood Lead levels on Adults in Michigan. January 2016. (www.oem.msu.edu)
- 2014 Annual Report on Blood Lead levels on Adults in Michigan. Under review at MDHH.
- 2014 Annual Report: Summary of Occupational Disease Reports to the Michigan Dept. of Licensing & Regulatory Affairs August 2015 (available at www.oem.msu.edu)
- 2014 Annual Report on Carbon Monoxide Poisoning in May 2016. (www.oem.msu.edu)
- Work-related Amputations in Michigan, 2013, September 2015. (www.oem.msu.edu)
- Work-related Amputations in Michigan, 2014. March 2016. (www.oem.msu.edu)
- Tracking Work-Related Burns in Michigan - Data Fact Sheet. 1/29/2016 (www.oem.msu.edu)
- Tracking Work-Related Crushing Injuries in Michigan – Data Fact Sheet. 2/3/2016 (www.oem.msu.edu)

- Heavy Metals Surveillance in Michigan – Data Fact Sheet. 1/29/2016 (www.oem.msu.edu)
- Tracking Work-Related Hospitalizations in Michigan – Data Fact Sheet. 1/27/2016 (www.oem.msu.edu)
- Tracking Work-Related Skull Fractures in Michigan – Data Fact Sheet. 2/5/2016 (www.oem.msu.edu)
- Tracking Adult Blood Lead in Michigan – Data Fact Sheet 12/5/2016
- Tracking Work-Related Amputations in MI-Data Fact Sheet. 2/2016)
- Tracking Work-Related Diseases in MI – Data Fact Sheet. 8/21/2015 Work-Related Fall Injuries – Hazard Alert. 8/17/2016 (www.oem.msu.edu)
- Prevent Burns from Hydrofluoric Acid in the Workplace – Hazard Alert. (www.oem.msu.edu)
- Work-Related Hospitalizations for Ice-Related Fall Injuries in Michigan – Hazard Alert. 2/1/2016 (www.oem.msu.edu)
- Work-Related Fatalities and Injuries from Using Ladders in Michigan – Hazard Alert. 2/29/2016 (www.oem.msu.edu)
- Food Service Work-Related Burn Injuries in Michigan – Hazard Alert. 3/3/2016 (www.oem.msu.edu)
- Hazard Alert – “Work-related Amputations due to Power Saws”. http://www.oem.msu.edu/userfiles/file/HAZALERTS_%20Saws_Amputations.pdf

Publications:

Rosenman KD. OSHA, Well Past its Infancy, but Still Learning How to Count Injuries and Illnesses. Am J Ind Med 27 JUN 2016 | DOI: 10.1002/ajim.22623.

Presentations:

- Elhindi A, **Stanbury M, and Rosenman KD.** Exploring Occupation/Industry Information in a State Infectious Disease Registry. Presented at the annual meetings of the Michigan Public Health Association Epidemiology group (April 2016) and the Council of State and Territorial Epidemiologists (June 2016).
- **Kica J, Reilly MJ, Rosenman KD.** OSHA’s New Rule on Reporting Work-Related Hospitalizations, Michigan. Annual CSTE Meeting (June 2016)

Potential Outcomes

- All reports and presentations listed above contained recommendations that if implemented would reduce work related fatalities and morbidity.

Intermediate Outcomes

- Referrals of worksites identified by occupational disease/injury reports to MIOSHA resulted in worksite inspections that identified hazards which, when corrected, will prevent additional work-related disease/injury.
- Increased awareness and recognition of work-related diseases and injuries by physicians improved secondary prevention activities including early diagnosis and treatment and occupational disease reporting.
- Multi-year efforts to improve surveillance systems in Michigan (e.g., obtaining more complete occupation and industry information in communicable disease surveillance system) and nationally (e.g. efforts to capture occupation and industry in electronic health records), while not yet completed, will ultimately result in better surveillance data which will prompt prevention.

Annual Report of Accomplishments and Outcomes, July 2015 – June 2016 – *Pesticides Illnesses and Injuries*

Michigan State University/Michigan Dept. of Health and Human Services/Michigan Dept. of Licensing and Regulatory Affairs

Enhanced Program in Occupational Injury and Illness Surveillance

Principal Investigator – Kenneth Rosenman, MD (517)353-1846 Rosenman@msu.edu

Coordinator – Abby Schwartz, MPH (517) 284-4814 schwartz@nichigan.gov

The primary activities of the Michigan Pesticides Illness and Injury program were:

- To conduct surveillance for acute pesticide-related illness and injury.
- To conduct prevention activity through referrals for workplace investigations and the development and dissemination of educational materials.

MAJOR ACCOMPLISHMENTS AND OUTPUTS

Case Ascertainment

From July 1, 2015 through May 31, 2016, there were 105 work-related case reports received with 62 cases confirmed. There were 2,119 environmental pesticide reports received with 253 confirmed cases.

Investigations

A worker was exposed to a disinfectant at a chemical packaging plant and developed dermal signs and symptoms. This was referred to Michigan Occupational Safety and Health Administration (MIOSHA) and an investigation was initiated.

Two workers in a field became ill after an adjacent field was sprayed. This was referred to the Michigan Department of Agriculture and Rural Development (MDARD) and an investigation found a record-keeping violation.

A priority alert was sent to NIOSH regarding an incident with four or more exposed persons, where several workers at a meat processing plant were exposed to aerosolized ammonia that leaked through a seal from an adjacent room. Four workers were treated at a hospital for headache, nausea, chest pain, vomiting, and high blood pressure. This incident was also referred to MIOSHA.

Three incidents involving drift on blueberry pickers were identified. The incidents were investigated by MDARD and violations were found in two of the incidents. All three incidents were reported to NIOSH because four or more workers were exposed.

Materials Development, Publications, Presentations, and Other Outreach

Outreach and Presentations

- A list of housekeeper/cleaner/janitor disinfectant exposure stories was prepared for MIOSHA.
- Staff distributed program reports and other educational material at a display table at the Conference for Michigan's Farm Worker, Service Providers, and Growers in November 2014. There were 150 registered attendees.

- Staff attended the annual winter SENSOR-Pesticides meeting.
- Staff attended meetings of the Migrant Health Network at the Michigan Primary Care Association to discuss pesticides and migrant worker exposures.
- One case was given information about the need for a pesticide business license and applicator certification to share with his employer.
- Two incidents of recreational water exposures were reported to the CDC's National Outbreak Reporting System (NORS).
- Michigan's pesticides project coordinator continued to chair the SENSOR-Pesticides "coding committee" and actively participated with other committee members in making revisions to the Standardized Variable Document. An updated version of the Standardized Variable Document was distributed in October 2015.
- The Pesticide Advisory Committee (PAC) for the MDARD continued to serve as the advisory committee to the pesticide surveillance program; Ms. Schwartz is a member of the PAC. It met quarterly. A summary update of the pesticide surveillance system was presented at each meeting.
- The project coordinator revised material from the American Association of Poison Control Centers for MDHHS to post on social media for Poison Prevention Week in March 2016.
- In April 2016 pesticide safety messages were prepared for MDHHS to post on social media, talking about the increased use of pesticides in spring and summer and the need to use them safely. The home pesticide use fact sheet was updated and the link provided for the social media posts.
- As part of CDC's national Recreational Water Safety Week in May, local health departments were emailed information about the hazards of pool chemicals, and MDHHS issued a press release as well as daily Facebook postings and Twitter tweets. The pool safety fact sheet was updated for this.
- A spring email was sent to migrant health clinics with information about reporting requirements, Poison Control, and taking an environmental/occupational history with multiple attachments for their use.

Surveillance Summaries

- Occupational Pesticide-Related Illnesses and Injuries in Michigan, 2014 - Data Fact Sheet. 09/2015
- Pesticide Illness and Injury Surveillance in Michigan 2013. 12/2015

Publications

- Calvert G, Beckman J, Prado J, Bojes H, Mulay P, Lackovic M, Waltz J, **Schwartz A**, Mitchell Y, Moraga-McHaley S, Leinenkugel K, Higgins S. Acute Pesticide Illness and Injury – United States, 2007-2010. MMWR / October 23, 2015 / Vol. 62 / No. 54
- Fortenberry G, Beckman J, **Schwartz A**, Higgins S, Bonnar-Prado J, Graham L, Higgins S, Lackovic M, Mulay P, Bojes H, Waltz J, Mitchell Y, Leinenkugel K, Oriel M, Evans E, Calvert G. Magnitude and Characteristics of Acute Paraquat- and Diquat-related Illnesses in the US: 1998 – 2013. EnvironmentalResearch146(2016)191–199

Potential Outcomes

All reports and presentations listed above contained recommendations that if implemented would reduce work related fatalities and morbidity.

Intermediate Outcomes

Exposure stories provided in the Pesticide Advisory Committee quarterly reports were used by MDARD and MSU when training pesticide applicators.

Data were used by the EPA during pesticide re-registration evaluations.

End outcomes

Changes in EPA labeling requirements based on information from the surveillance system will lead to safer use of pesticide products.

Increased awareness of pesticide hazards and safe handling will lead to reduced injury and illness from pesticide use.

Annual Report of Accomplishments and Outcomes, July 2015 – June 2016 – *Work-Related Asthma (WRA), Silicosis and Other Occupational Lung Diseases (OLD)*

Michigan State University (MSU)/Michigan Department of Health & Human Services (DHHS)/Michigan Department of Licensing and Regulatory Affairs (LARA)

Enhanced Program in Occupational Injury and Illness Surveillance

Principal Investigator – Kenneth Rosenman, MD (517) 353-1846 Rosenman@msu.edu

Coordinator – Mary Jo Reilly, MS (517) 353-4979 maryjo.reilly@hc.msu.edu

Primary activities of the WRA, Silicosis and OLD program were:

- To conduct surveillance for WRA, silicosis, and other work-related lung diseases, including asbestosis, work-related hypersensitivity pneumonitis, hard metal lung disease, the minor pneumoconioses, and other emerging lung diseases.
- To conduct prevention activity through workplace investigations and the development and dissemination of educational material.

MAJOR ACCOMPLISHMENTS AND OUTPUTS

Case Ascertainment

- 461 reports were received, with 45 confirmed WRA, 6 confirmed Silicosis and 302 confirmed with other work-related lung disease (74 Asbestosis, 171 Chemical Pneumonitis, and 57 others such as beryllium lung disease, hard metal lung disease, metal fume fever, COPD and smoke inhalation), 98 still being followed up and the remaining 10 determined to not be a work-related lung disease.
- Quarterly reminders were emailed to the 136 MI hospitals to report occupational diseases from 2015 and 2016, as required by law. Quarterly reporting resulted in timelier patient follow-up and MIOSHA referrals for enforcement inspections. 2014 MI inpatient and outpatient files from the MI Health and Hospital Association were used to verify reporting; hospitalizations not reported were followed up to collect records on missed cases.
- Six Occupational Health Clinics were audited by MIOSHA to enforce the MI Occupational Disease Reporting Law. Of the six clinics audited during 2015, two were found to be in compliance with the reporting law, three were not initially in compliance but since the audit have begun to report, and one was no longer in business.

Investigations: Five MIOSHA inspections were completed for WRA and one for hard metal lung disease. Co-worker questionnaires were completed for 4 of the 5 WRA inspections: 6 of 72 co-workers interviewed reported daily or weekly chest tightness, shortness of breath, wheezing or the onset of asthma since beginning to work at the company, and were advised to see a doctor.

Materials Developed, Publications, Presentations and Other Outreach Materials:

Program Publications available at www.oem.msu.edu

- 2014 Annual Report Tracking WRA in MI. 12/18/15.
- Tracking WRA in MI. 2-page data fact sheet updated 9/11/15.
- 2014 Annual Report on Silicosis & Other Lung Diseases in MI. 1/11/16.
- 2014 Annual Summary of Occupational Disease Reports to LARA. 12/30/15.
- Tracking Work-Related Lung Diseases in MI. data fact sheet updated 9/11/15.
- Tracking Work-Related Diseases in MI. data fact sheet updated 8/21/15.
- Tracking Asbestos-Related Lung Disease in MI. data fact sheet updated 3/11/16.
- *P.S. News* – Quarterly distributed to approximately 3,000 health professionals:
Fall 2015, *Medications and Work-Related Asthma*; **Winter 2015-2016**, *Use of a Methacholine Challenge Test to Diagnose Work-Related Asthma*; **Spring 2016**, *Elevated Blood Lead Levels in Flint, Michigan*; **Summer 2016**, *Obliterative Bronchiolitis from Exposures in the Work Environment*.

- 3 Hazard Alerts: Prevent WRA from Welding Fume 8/12/15; Prevent WRA in the Transportation Manufacturing Industry 9/9/15; Prevent WRA from Isocyanate Exp. in Foam-in-Place Processes 4/12/16.
- Michigan Workforce, 2014: Potential Exposure to Acrylic Acid, Chromium or Chromium Compounds, Diethanolamine and Ethylene Oxide 10/28/15.

Scientific Publications:

- Millerick-May ML, Mulks MH, Gerlach J, Flaherty KR, Schmidt SL, Martinez FJ, LeVeque RM, **Rosenman KD**. Hypersensitivity pneumonitis and antigen identification – An alternate approach. *Respir Med*. 2016 Mar; 112: 97-105.
- Filios MS, Mazurek JM, Schleiff PL, **Reilly MJ, Rosenman KD**, et al. Summary of Notifiable Noninfectious Conditions and Disease Outbreaks: Surveillance for Silicosis – Michigan and New Jersey, 2003-2010. *MMWR* 2015 Oct 23; 62:81-85.
- Lefkowitz D, Pechter E, Fitzsimmons K, Lumia M, Stephens AC, Davis L, Flattery J, Weinberg J, Harrison RJ, **Reilly MJ, Filios MS, White GE, Rosenman KD**. Isocyanates and work-related asthma: Findings from California, Massachusetts, Michigan, and New Jersey, 1993-2008. *Am J Ind Med*. 2015; 58: 1138-1149.
- Millerick-May ML, Schrauben S, **Reilly MJ, Rosenman KD**. Silicosis and chronic renal disease. *Am J Ind Med*. 2015 Jul;58: 730-736.
- **Rosenman KD**. Health Disparities in Occupational Exposures in Health Disparities in Respiratory Medicine. Eds. Gerald LB, Berry CE. Springer International Publishing, Switzerland 2016: 59-78.
- **Rosenman, KD**. Silicosis. In *Oxford Bibliographies in Public Health*. Ed. David McQueen. New York: Oxford University Press. 2/25/2016
- Desautels N, Singh S, Burrell J, **Rosenman KD**. What should be the Content and Frequency of Performing a Medical Evaluation to Determine Fitness to Wear a Respirator? *JOEM* 2016 (in press).

Presentations:

Rosenman KD. Overview of Occupational and Environmental Lung Disease. Univ of Michigan Pulmonary Division Conference, Ann Arbor, 2/2/16.

Rosenman KD. Work-Related Asthma. MSU Med Grand Rounds, Lansing, MI, 2/9/16

Other Outreach: Work-Related Injury & Illness educational display booth exhibited at 18 conferences: UM 33rd Internal Med. Conf., 7/31- 8/22/15, Mackinac Island MI. 189 attendees; UM 28th Ann. Cardiology Update, 8/14-16/15, Mackinac Island MI. 105 attendees; MI Academy of Pediatrics Annual Meeting, September 18-19, 2015. 89 attendees; MOEMA 2015 Conference, 9/18-19/15, East Lansing MI. 70 attendees; MAPA Conference, 10/8-10/15 Traverse City MI. 615 attendees; UM Neonatal Nursing Symposium, 11/4/15, Ann Arbor MI. 73 attendees; MOA 9th Ann. Scientific Convention, 11/7/15, Grand Rapids MI. 209 attendees; UM Pulmonary & Crit Care Med Conf., 11/14-15/15 Plymouth MI. 126 attendees; ACOG Annual Meeting, 2/4-6/16, Crystal Mountain MI. 70 attendees; MSU Osteopathic Medicine Meeting, 2/20/16, East Lansing MI. 98 attendees; MICNP Ann Conference, 3/11-12/16, Lansing MI. 384 attendees; MAPA Spring Conference, April 8-9, 2016. Frankenmuth MI. 63 attendees; 2016 MI Safety Conference, 4/18-19/16, Grand Rapids MI. 2314 attendees; UM Internal Medicine Spring Review, 5/6-7, /16, Plymouth MI. 182 attendees; MOA Annual Spring Convention, 5/12-14/16, Dearborn MI. 580 attendees; MSMS Annual Spring Scientific Sessions, 5/19-20/16, Troy MI. 184 attendees; UM Partners in Pediatric Care, 5/20/16, Ann Arbor MI. 87 attendees; UM Partners in Pediatric Care, 6/3/16, Traverse City MI. 68 attendees.

Social media:

- We maintained accounts on Facebook (59 posts July 2015 - June 2016) and Twitter (55 tweets/retweets July 2015 - June 2016). 503 hits on our website for lung conditions.

Other Administrative and Related Outreach Activity:

- Ms. Reilly: Advisory Board for Michigan's Environmental Tracking Network.
- 155 new and 20 updated items were submitted to the NIOSH Clearinghouse.
- Dr. Rosenman and Ms. Reilly: MI Asthma Advisory Committee (MAAC) & Steering Committee for the Asthma Initiative of MI (AIM).
- MOUs with MIOSHA and the WCA were finalized to ensure continued cooperation and coordination of occupational injury and illness surveillance activities in Michigan.

Special Projects:

- **Outreach to Isocyanate-Using Companies in MI:** The 107 isocyanate-using companies in MI were mailed a cover letter with enclosed medical surveillance protocol for workers exposed to work-related allergens and the OSHA Fact Sheet on WRA.
- **Outreach to Abrasive Blasting Companies in MI:** The 495 potential abrasive blasting companies in MI were mailed a survey about their use of abrasive media. The survey is conducted every 5 years in MI to monitor trends.
- **Outreach to Temporary Employment Agencies in MI:** The 300+ temp employment agencies were emailed the new MIOSHA Instructions for Multi-Employer worksites.
- **Survey of the Community Health Centers in MI:** Multiple emails with links to a survey were sent to the 42 Community Health Centers in MI to ask about the frequency, nature and magnitude of work-related conditions seen in the clinics.

Potential Outcomes: All reports and presentations listed above contain recommendations that if implemented would reduce the burden of work-related lung diseases.

Intermediate Outcomes:

- The 6 MIOSHA Enforcement inspections benefitted employees exposed to asthma and other lung-disease-causing agents: 1) Health and safety violations must be corrected, which led to an overall safer and healthier work environment. 2) Letters to the 6 symptomatic individuals identified through the co-worker interviews directed these individuals to a physician for follow-up for their breathing symptoms.
- There were over 5,500 attendees at the 18 conferences where we exhibited the occupational and environmental display booth. Attendees had the opportunity to learn more about WRA and other work-related disease, and take home literature on these topics as well as speak with a staff member from our office.

End Outcomes:

- There has been a decrease in the number of individuals in Michigan with WRA caused by isocyanates (since 1994), metal-working fluids (since 1992) and all low molecular weight agents combined (since 2000). The MI Surveillance program was instituted in 1988 and has spent considerable effort in enforcement and educational outreach to companies, physicians and employees to address work-related asthma caused by these substances.
- There has been an increase in cleaning agent-related WRA cases in MI since 1988, with a drop since 2004. Outreach and publications on cleaning agents have been increased since 2003 to address issues associated with cleaning agent-related WRA.
- The number of cases of silicosis in Michigan has been decreasing since 1991. The MI Surveillance program began in 1988 and has spent considerable effort in outreach to companies, physicians and employees in addressing silicosis, through both enforcement investigations as well as through educational media.

Annual Report of Accomplishments and Outcomes, July 2015 – June 2016 – *Acute Traumatic Work-Related Deaths*

Michigan State University/Michigan Dept. of Health and Human Services/Michigan Dept. of Licensing and Regulatory Affairs, Enhanced Program in Occupational Injury and Illness Surveillance

Principal Investigator – Kenneth Rosenman, MD (517)353-1846 Rosenman@msu.edu

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The primary activities of the Michigan Acute Traumatic Work-Related Death program were:

- To conduct surveillance for acute traumatic work-related deaths,
- To identify the root cause(s) of the death
- To conduct prevention activity through workplace investigations and the development and dissemination of educational material.

MAJOR ACCOMPLISHMENTS AND OUTPUTS

Case Ascertainment

There were 114 work-related fatality reports received, with 101 confirmed.

Investigations

There were seven MIFACE site visits performed.

Materials Development, Publications, Presentations and Other Outreach

1. Program Publications available at www.oem.msu.edu
 - a. 2014 Annual Report on Acute Traumatic Work-Related Fatalities in Michigan
 - b. Tracking Acute Work-Related Deaths in Michigan – A 2-page summary sheet highlighting key elements of the 2014 Annual Report
 - c. Twenty-one MIFACE Summaries of MIOSHA Investigations. The Summaries were written for educational purposes and have been used by MIOSHA in training programs and distributed to employers during MIOSHA injury/illness investigations. Employers utilize the summaries in employee training programs and “tailgate talks”.
 - d. Five MIFACE Investigation Reports
 - e. Two Hazard Alerts: Work-Related Fatalities & Injuries From Using Ladders in Michigan and Safe Use of Tractors Will Prevent Work-Related Deaths
2. Presentations
 - a. Workplace Death Investigations. Michigan Water Environment Association (MWEA). Lansing, MI. 10/28/15.
 - b. Work-Related Fatalities: The MIFACE Experience. Construction Association of Michigan Safety Leaders Conference, December 2, 2015
 - c. MIOSHA Consultation, Education and Training Activity to Agricultural Workers and Employers. Topics included: MIFACE Agricultural Update, New MIOSHA Recordkeeping Requirements, Agricultural Safety and Health Plan Development, Transportation Safety, Needle stick/Sharps Injury Prevention, Hazard Communication Label and Safety Data Sheet Changes.
 - i. Hart United Methodist Church, Hart, MI, January 19, 2016.
 - ii. Wayne County Michigan Farm Bureau, MI, February 10, 2016

- iii. Anthony Hall, MSU, East Lansing, MI, February 17, 2016
 - iv. English Hills Country Club & Banquet Hall, Walker, MI, February 25, 2016
 - v. 4-H Center, Monroe County Fairgrounds, Monroe, MI, March 1, 2016
 - vi. GreenMark Farm Equipment, Hastings, MI, March 5, 2016
 - vii. Williams Farm Machinery, Charlotte, MI, March 9, 2016
 - viii. Salem Mennonite Church, Waldron, MI. April 9, 2016
 - d. MIFACE Agricultural Update & How AgrAbility Might Impact Work-Related Fatalities in Agriculture. Migrant Services Commission Meeting at Michigan Primary Care Association Headquarter Office, Lansing, MI, January 5, 2016
 - e. Temporary Workers in Michigan: Statistics, Research, and Real Life. MIOSHA Temporary Worker Forum
 - i. MIOSHA Secondary Center, Lansing, MI, March 3, 2016
 - ii. Grand Rapids, MI, June 8, 2016
 - f. A Metal Ladder & An Overhead Power Line Changed Our Lives Forever, Holland, MI, March 14, 2016
 - g. MIFACE: FACE a Safer Future, University of Michigan, Ann Arbor, MI, March 22, 2016.
 - h. MIFACE: FACE a Safer Future, Michigan Association of Hazardous Materials Professionals, Howell, MI, April 7, 2016.
 - i. Safety Concepts Applied to Secondary Injury Prevention, National AgrAbility Conference, Fort Collins, CO, April 11, 2016
 - j. We Are Not Born Knowing Safety – Is Common Sense the Answer?, Michigan Safety Conference, Grand Rapids, MI, April 19, 2016
3. Other Outreach
- a. Worker Memorial Day Activities
 - i. Press release prepared and distributed April 27, 2016. Press Release highlighted in print and internet publications
 - b. Conference Display Booth
 - i. Michigan Safety Conference, Grand Rapids, MI. April 19, 2016
 - ii. MIFACE Brochures distributed at all presentations listed above
 - c. MIFACE Work-Related Fatality Case Summary Pages on MSU OEM website
 - i. A case summary for each confirmed 2015 and 2016 work-related fatality is posted on the MIFACE webpage.
<http://www.oem.msu.edu/2014WorkRelatedFatalities.aspx>,
<http://www.oem.msu.edu/2015WorkRelatedFatalities.aspx>
 - ii. New cases sent quarterly to e-mail stakeholders
4. Publications
- i. Accident Reconstruction Journal Volume 25, No.4, July/August 2015. Painter Killed When Elevated Scissor Lift Hit Pavement.

Special Projects

- 1. AgrAbility. Collaboration to extend agricultural safety information to farmers utilizing AgrAbility services.

2. Co-chair of Agricultural Safety Section and Michigan Safety Conference Board Member since 2013 Responsibilities included agenda development, speaker procurement and follow-up.
3. Collaboration with National Truckers Association (NTA). MIFACE is coordinating the placement of State and NIOSH FACE truck related work-related fatality reports placed on a Safety Issues webpage on the NTA website. <http://www.nationaltruckers.com/blog>
4. Temporary Workers: Collaboration with Michigan OSHA to conduct educational outreach to temporary staffing agencies.

Potential Outcomes: All reports and presentations listed above contained recommendations that if implemented would reduce work-related fatalities and morbidity.

Intermediate Outcomes:

- Methylene Chloride: Several companies that produce methylene chloride containing products that were (inappropriately) used in the bathtub refinishing industry came to CPSC last year and talked about voluntary labelling (adding info on acute effects/ventilation). Since the meeting, 3M has discontinued Tal Strip II Aircraft Coating Remover. New labeling changes have been proposed by WM Barr.
- MIOSHA held “MIOSHA Coffee” with employers on a quarterly basis. When a fatality is determined to be a program-related fatality for MIOSHA, MIOSHA sends an email to their mail list summarizing initial information about the death. During quarterly “Coffee with MIOSHA”, attendees have requested more information about the fatalities, without using a Freedom of Information Act request. MIOSHA is now linking the appropriate MIFACE Summary of MIOSHA Investigations to the MIOSHA fatality summary.
- Several attendees at the March 14, 2016 presentation contacted MIFACE to provide information for use in their training activities and Safety Stand Down.
- There were 1,674 hits on the MIFACE section of our website.

End Outcomes: Since 2001, the number of work-related fatalities has decreased from 174 in 2001 to a projected 138 work-related fatalities in 2015; a reduction of 21%.