

Minnesota Occupational Health and Safety Surveillance Program

Annual Report of Accomplishments and Outcomes, July 2016 – June 2017

Minnesota Department of Health – Fundamental Program

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Collaborations:

- We continued our collaborative relationships with the Minnesota Department of Labor and Industry (DLI), Minnesota OSHA, and the University of Minnesota (U of MN) Midwest Center for Occupational Health and Safety as well as other MDH programs. Currently the collaborators are exploring the possibility of linking multiple datasets to create a more complete and accurate measure of the number of injuries with a relationship to agriculture that occur annually in Minnesota. The collaboration also aims to address the long term health care costs associated with injury related to agriculture.
 - *Potential Outcomes:* The agricultural sector in Minnesota has been identified as one with high rates of injury and fatality. To date the data generated by the current surveillance methods has been used to identify and draw attention to the issue, leading to the allocation of resources for intervention programs. A more refined methodology that allowed for a more complete and accurate case capture could potentially allow for evaluation of these programs and greater specificity in intervention programs and aims. The long term goal of these efforts is to reduce injury from agricultural work-related activities.
- A second collaboration with the MN DLI includes the Minnesota Safety Council. This collaboration created a dashboard of occupational health and safety statistics and measures for Minnesota, which can be found here: <http://www.minnesotasafetycouncil.org/WorkplaceSafetyDashboard.pdf>. As part of the collaboration measures from our Occupational Health Indicators were used to complement the data from MN DLI and the MN Safety Council. Physical copies of the dashboard have been supplied at a number of meetings with health and safety professionals in an effort to promote awareness of the available data and information. The data and content on the dashboard will be updated and can be rotated to address timely issues and concerns.
 - *Potential Outcome:* Increased awareness of occupational safety and health issues, an awareness of how much time is spent in the workplace, and the impact workplace hazards have on the non-work life.
- The Tri-State collaboration formed with the Wisconsin and Iowa Occupational Health and Safety State Based Surveillance programs aims to address issues of occupational health and safety at a regional level. This year the three programs have had 4 meetings, two in person and two via conference call. Iowa and Wisconsin have pilot tested the methodology Minnesota developed to identify injuries with a potential relationship to agriculture using hospital billing discharge data. Currently the three states are investigating the impact the transition to ICD-10CM will have on this measure. A report detailing the findings from this investigation as well as a regional measure of injury with a potential relationship to agriculture is anticipated.
 - *Potential outcome:* A stronger relationship between the three states to allow for increased communication and leveraging of resources. The 3 states share borders and often have citizens living in one and working in another; this relationship has already allowed for coordinated responses, decreasing possible confusion and miss-communication. All three states have strong agricultural sectors and reductions of injuries and fatalities in this employment sector is important. A regional report of the descriptive epidemiology of agricultural injury can aid the different Ag programs in each state.
- The Roll Over Protective Structure (ROPS) rebate program that developed through a collaboration between the MN DLI, the MN Department of Agriculture (MDA), the New York Center for Agricultural Medicine

and Health (NYCAMH) and the MDH Center for Occupational Health and Safety (Center) was successfully implemented. The program was initially funded with \$250,000 in state money and \$20,000 in private donations in the year 2016. Those resources were completely allocated within 3 months of the program launch and a waiting list was developed. The 2017 legislature continued the funding (\$150,000) and support for the program.

- *Potential Outcome:* The ROPS Rebate program will continue to provide subsidies to farmers to install ROPS on tractors and reduce the risk of serious or fatal injuries.
- We continued to collaborate with our CDC funded Asthma Program. We participated in a work group addressing the hazards associated with nail and hair salons. The work group is comprised of the MDH Asthma Program and researchers from the U of MN, MN OSHA, MN Pollution Control Agency, MDH, Hennepin County Public Health and the MN Bureau of Cosmetology. This working group has provided the opportunity for the MDH COHS and Asthma programs to partner with researchers at the U of MN to investigate knowledge, attitudes, and beliefs towards occupational health and safety practices in the hair and nail salon setting. External funding has been obtained to conduct a series of focus groups to ascertain the most appropriate method of survey delivery, language preferences, and health and safety issues of concern.
 - *Potential Outcome:* The information gathered from this survey will help evaluate a newly implemented occupational health and safety licensure rule. The data will also inform the updating of rules regarding education standards for cosmetology schools.
- The Heart Safe Workplace Program, in collaboration with the MDH Heart Disease and Stroke Unit continues and has recently enrolled 3 large Minnesota corporations into the program.
 - *Potential Outcome:* The collaboration has strengthened ties between chronic disease programs and the NIOSH funded surveillance program. These Heart Safe Workplaces will improve the odds of survival should someone have a cardiac event at work.

Other Achievements:

- As of June 2017, 23 occupational health indicators had been completed for the year 2014 and submitted to NIOSH for presentation on the CSTE website.
- The Center's website providing program information and the indicators has been updated with the most recent year of data for all of the indicators, found here: <http://www.health.state.mn.us/divs/hpcd/cdee/occhealth/indicators/index.html#indicators>. A new indicator page has been added for the Minnesota-developed "Injury Related to Agriculture Requiring Medical Care" indicator, found here: <http://www.health.state.mn.us/divs/hpcd/cdee/occhealth/indicators/aginjury.html>.
- The scientific advisory group met twice and provided guidance on projects and potential collaborations.
- Center staff responded to a MN legislative proposal that would establish a voluntary cancer registry for Minnesota firefighters. A fiscal note was prepared to address the requirements of such a system. Subsequent meetings between Center staff, the key legislator, and a firefighter union leader addressed limitations of a voluntary registry, published research on cancer risks among firefighters, and potential preventative actions that would reduce harmful exposures and cancer risks among firefighters.
 - *Potential Outcome:* The voluntary registry bill was withdrawn in favor of future more productive proposals to support education and preventative actions to reduce exposures to harmful substances and promote health of firefighters.
- The Center has obtained the BRFSS data for the years 2013- 2016 which include the optional module for industry and occupation. The data have been evaluated for consistency and reliability and basic analyses for several health conditions and behaviors by occupational and industrial groupings have been completed. These analyses will be used as the foundation for a more in depth comprehensive analysis combining multiple years of data.

- *Potential Outcome:* These analyses will be useful in identifying issues and populations of interest for programmatic intervention. The data provide an opportunity for the Center to collaborate with other programs, agencies, and non-profits to address specific health behaviors and health conditions in identified working populations.
- The Center established a new working group to discuss and investigate opportunities to promote Total Worker Health. The working group is comprised of individuals from the MDH's Office for Statewide Health Improvement Initiative, the U of MN Midwest Center for Occupational Health and Safety, MN Safety Council, Health Care Providers, Health Insurers, the Veterans Administration, and Workers' Compensation Insurers. Two meetings have been held, the first to establish connections and network. The second meeting provided an opportunity for members to present current work and research and develop ideas for future work and collaborations.
 - *Potential Outcome:* An opportunity for the Center to disseminate the work it has completed using the BRFSS data in describing the patterns of health behaviors and conditions by different occupational and industrial groups. An opportunity for data to drive action and research.
- The Center continued to contribute to the MDH Health Promotion and Chronic Disease Division's dashboard by highlighting the Center's mission to provide data and information about occupational safety and health injuries and illnesses.
- The Center has initiated the application process to obtain data from the MN All Payers Claims Database (APCD). The APCD collects information, including cost and payment information, related to health care services provided to all Minnesota residents over time. The proposal seeks to use the MN APCD to create a cost estimate of the health care costs associated with injury with a potential relationship to agriculture.
 - *Potential Outcome:* A more accurate measure of the health care costs associated with injury with a potential relationship to agriculture, including downstream or rehabilitative care costs, pharmaceutical care costs, and readmission costs. This will also provide the Center with the opportunity to familiarize itself with the MN APCD and identify other occupational health and safety investigation opportunities this data source might provide.
- A public health graduate student intern completed an investigation and evaluation of the MN Poison Control Center data for identification of work-related pesticide poisonings. An analysis of the differences between occupational and non-occupational poisoning events has been completed and a presentation of the results was made to the MN Poison Control Center. This research served as the intern's master's thesis and is currently being formatted for submission to a journal.
- A public health graduate student intern assisted in creating a document that housed all the available information for the Minnesota OHIs. This document has now been published on the Center website, here: <http://www.health.state.mn.us/divs/hpcd/cdee/occhealth/documents/IndicatorReport2013.14.pdf>.

Papers, Presentations, and News Releases:

- Landsteiner A, PhD MPH. *Occupational Health and Safety Indicators*. Invited Speaker MN OSHA Advisory Council, June 2016, St Paul Minnesota
- Landsteiner A, PhD MPH. *Occupational Health and Safety Indicators*. Invited Speaker MN Safety Council Advisory Panel, August 2016, St Paul Minnesota
- Submission to NIOSH e-News – April 2017 – “Minnesota Occupational Health Indicators Report”.
- Norlien K, Landsteiner A, Williams A, Carlson A. Occupational Health Survey of Cosmetologists. *Journal of Environmental Health*, Vol 79, No. 9, May 2017.