Minnesota Occupational Health and Safety Surveillance Program
Annual Report of Accomplishments and Outcomes, July 2014 – June 2015
Minnesota Department of Health – Fundamental Program

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Collaborations:

- We have worked to continue 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 (MCOHS), as well as other MDH programs The PI is an adjunct faculty member at the U of MN, serves on Masters and Doctoral committees, and advisory boards, and provides internships at MDH for graduate students. DLI has provided MDH with data and expertise for the creation and interpretation of the occupational health indicators that rely on the use of workers' compensation and Bureau of Labor Statistics SOII and CFOI data.
    - *Potential Outcomes:* These collaborations have increased awareness of workplace health and safety surveillance issues and priorities among state agencies and academia, identified research and training opportunities, and contributed to the professional development of current and future health and safety professionals in Minnesota. The collaboration with DLI has led to the convening of a workgroup to develop a program to promote intervention activities directed toward the reduction of fatalities related to agriculture.

- We have collaborated with our Asthma Program on the analysis of a large survey of cosmetologists regarding health and safety training and respiratory issues. The survey was conducted electronically with the use of a list of all licensed cosmetologists in the stat of Minnesota provided by the Board of Cosmetology. The survey has been analyzed and written up and is currently undergoing final edits to be submitted for publication.
    - *Potential Outcome*: The data provide an understanding of the frequency and depth of training that individuals employed in cosmetic services are provided. It has provided justification to pursue training and educational opportunities for these populations.

- A collaboration has been initiated with the MDH Heart Disease and Stroke Unit as well as the Heart Safe Communities Program to develop a method to include workplaces in the Heart Safe Communities Program. Through an application process these workplaces would be able to become a "heart safe workplace" and promote activities that would increase the likelihood of survival should an employee have a heart attack or stroke on site.
    - *Potential Outcome*: The collaboration will strengthen ties between chronic disease programs and the NIOSH funded surveillance program. It will also promote health and safety activities that will aid in maintaining safe work environments.

- In collaboration with the Center for Public Health Education and Outreach with the Midwest Center for Occupational Health and Safety we are developing outreach and dissemination strategies to promote the work completed through this co-operative agreement. Presentations, articles, and alerts are currently in development and planning to engage occupational health and safety professionals in MDH Center activities.
    - *Potential Outcome*: This collaboration will provide a number of opportunities for us to publicize the occupational health indicators and the other work being conducted under this co-operative agreement with NIOSH. It may also provide for other collaboration

opportunities and to solicit feedback from other occupational health and safety professionals regarding areas of concern or interest.

Other Achievements

- As of June 2014, all 20 specified 2012 occupational health indicators had been completed and submitted to NIOSH for presentation on the CSTE website. The 2012 indicator data collection and calculations have been calculated and were submitted to NIOSH before the June 2015 deadline.

- Calculation and creation of the 22nd occupational health indicator (OHI), Work-Related Severe Traumatic Injury Hospitalizations, was added to the list of indicators completed by Minnesota. Data for the year 2012 was submitted to NIOSH for quality assurance and inclusion on the CSTE website.

- The scientific advisory group continued to meet and provide guidance on a project related to work-related asthma, methods to improve dissemination of data, and further investigation of youth at work.

- We have completed trend analysis of the relevant CSTE/NIOSH occupational health indicators for years 2000 to 2012. A state profile to describe occupational health and safety in Minnesota has been drafted and is currently undergoing edits for publication and release.
    - *Potential Outcome*: This report will draw attention to issues relating to occupational health and safety, particularly for the creation of appropriate interventions or policy to further prevent occurrences of occupational disease and injury.

- Two related state-specific agricultural indicators have been developed and evaluated. The first utilizes state hospital discharge data to identify cases of injury related to agricultural work. The second creates estimates of the cost, direct and indirect, associated with agricultural injuries. A paper describing the rates and trends of agricultural injuries was accepted for publication in 2015 by the *Journal of Agromedicine*. A second paper on costs of agricultural injuries is undergoing agency approval and will be submitted to the *Journal of Agromedicine*.
    - *Potential Outcome*: The new indicators provide a more complete and sustainable methodology to monitor the burden of agricultural injuries. These data will be useful in prioritizing resources and evaluating prevention activities, as well as identification of at risk populations.

- Through the use of an online Google-News Search, nine agricultural fatalities were identified and media or news clippings relating to each incident were collected. We are continuing to collect these cases of agriculturally related fatalities and evaluate the use of Google-News as a source or means to conduct surveillance for agriculturally-related fatalities. CFOI does not reveal personal identifiers, so it has not been possible to compare media reporting with CFOI reports among adults.
    - *Potential Outcome:* Represents an extremely cost-effective method for surveillance of agricultural-related fatalities in both workers and children.

- An online survey of Minnesota high schools was conducted in June of 2013 to ascertain to what extent, if any, occupational safety and health concepts were incorporated into the school curriculum. Analysis of the survey results was completed in June 2014 in collaboration with consultant Teresa Hillmer, MPH, PhD, and a manuscript completed in June 2015. Following agency approval, the manuscript will be submitted for publication.

- *Potential Outcome*: Many opportunities are missed to incorporate occupational safety and health into existing school curricula. Survey findings will help promote awareness among school administrators and teachers of issues related to occupational safety and health.

- A University of Minnesota School of Public Health doctoral student was hired to analyze data from the Minnesota Student Survey, a multiagency-sponsored survey conducted every three years of over 80,000 students in 9th and 12th grades throughout Minnesota. The analysis examined the relationships between working for pay and outcomes such as grades, participation in school activities, smoking, drinking, asthma, etc. A paper has been prepared investigating the relationships between working for pay and volunteer work and outcomes such as grades, time for other activities, and stress. Following agency approval, the paper will be submitted for publication.
  - *Potential Outcome*: Provides critical data on working youth in Minnesota and how they may differ from their non-working peers.

- The work completed investigating scholastic outcomes among working and non-working students were presented in a research seminar of public health graduate students at the University of Minnesota for further discussion of how these data can be used to answer questions about working youth.

- The Center has participated in the hosting of Medical toxicology fellows rotating through the Minnesota Department of Health. This rotation provides these fellows the opportunity to learn about the daily activities occurring at the department. This year we have hosted 3 fellows.

Publications and Presentations

- Landsteiner A. Rates and trends of indicators of occupational health and safety in Minnesota. Invited presentation and discussion at the Minnesota Public Health Association Policy and Forum Series on Zip Code Matters on the intersection of geography and public health, October 2014.

- NIOSH eNews submission: "News from our Partners" for April 2015 – **Minnesota updates mesothelioma incidence in taconite miners and asbestos ceiling tile workers.**

- Landsteiner A, Williams A, Lindgren P, McGovern P, Alexander B. Rates and Trends of Injury Related to Agriculture in Minnesota, 2000 – 2011. Journal of Agromedicine, in press DOI 10.1080/1059924X.2015.1075449.

- Landsteiner A, Lindgren P, Williams A. Elevated Blood Lead Levels in Minnesota Adults. Poster presentation NORA Symposium, May 2015, University of Minnesota, St. Paul.

- Klein R, Hillmer T, Landsteiner A, Williams A. Worker Health and Safety Training in Minnesota High Schools. Poster presentation NORA Symposium, May 2015, University of Minnesota, St. Paul.

- Landsteiner A, Williams A. Feasibility of an Occupational Disease Reporting System. May 2015. MDH Report. http://www.health.state.mn.us/divs/hpcd/cdee/occhealth/documents/OccupationalDiseaseReporting.pdf

- Landsteiner A. Estimating the Burden of Serious Farm-Related Injury in Minnesota. Break Out Session Presentation. CSTE Annual Conference, Boston, June 2015.