

**State of Connecticut Department of Public Health
Occupational Health Unit**

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Occupational Illness and Injury Surveillance in Connecticut; Major Outputs and Outcomes July, 2016-June, 2017

Analysis of Underreporting

Longitudinal analysis of occupational illness and injury under-reporting in Connecticut has successfully continued over the past year. Capture-recapture analysis is a comparison of data from the Occupational Illness and Injury Surveillance System (OISS) and the Connecticut Workers' Compensation Commission that is performed annually in order to estimate the amount of occupational disease underreporting that occurs in Connecticut. Capture-recapture analysis for 2015 data found that 428 cases of occupational disease were reported to both the OISS and Workers' Compensation system (31 lung, 162 MSD, 34 skin, 173 infectious and 28 other). This generates an unadjusted estimate of 25,389 unreported occupational illnesses (in addition to the 7,525 unique cases reported to at least one system) for a total estimate of 32,914 cases. This estimate results in an estimate of 15% of occupational disease cases being reported to Workers' Compensation, and only 7% of cases reported to the OISS.

Occupational Health Indicators

Our current funding has allowed Connecticut to complete analysis for all 24 Occupational Health Indicators for 2014. A summary data report of all compiled Connecticut indicators and profile demographic data was provided to NIOSH in June 2017. Connecticut continues to publish occupational health indicator data to the Connecticut Open Data Portal. Connecticut's Open Data Portal is part of the Connecticut Data Collaborative, a public-private effort to improve the quality and access to policy-related data in the state. New data was published to the Open Data Portal in May 2017 which brings our shared indicator data current on the Open Data Portal. This portal allows for easier accessibility of indicator data to public health stakeholders in Connecticut. The occupational Health Indicators can be viewed on the Connecticut Open Data Portal using the following link. <https://data.ct.gov/Health-and-Human-Services/Occupational-Health-Indicators/rjrv-6g8e>

In November 2016, program staff presented with the University of Connecticut DOEM on Connecticut's sources of surveillance data and focused on the Occupational Health Indicators at the "Trends in Occupational Health" meeting at UConn. This presentation educated our academic partners and occupational medicine physicians in Connecticut on the occupational health indicators and their utility as a surveillance tool. (Potential Outcome)

Targeted Conditions

Program staff maintain a protocol for follow-up of individuals with elevated blood lead levels (EBLLS) >20 ug/dl and collect laboratory data on Connecticut residents with blood lead levels ≥10 ug/dl. This protocol includes sending a notification letter, accompanied by a lead safety fact sheet and a Take Home Lead Survey, to the affected individuals. Copies of the letters are also sent to the local health department where the individual resides to notify the Director of Health about the EBLL and keep them informed of our activities. An Implementation data report in the NIOSH approved variable format was prepared and forwarded to NIOSH in January of 2017. In

the summer of 2017 and currently an ongoing investigation, CT DPH program staff received a laboratory report of a Connecticut resident with a highly elevated blood lead level. The elevated lead level was discovered when the patient was hospitalized for other medical issues. Items at the home were tested that were used by the patient and the preliminary results showed that a bowl and a plate that were used exclusively by the patient were 3.1 and 4.1 mg/cm² respectively. These levels are 3-4 times higher than what is currently regulated for lead paint in homes. These items of concern were sent for further lead testing at the CT DPH Laboratory. (End Outcome)

Although not specifically funded as a specific aim, work-related asthma and heavy metal poisoning surveillance activities continued during 2016 and 2017. From January 1, 2016 through June 30, 2017, CT DPH received 278 mercury poisoning reports that were either 15 ug/L of whole blood or 35 ug/g creatinine in urine. Of those 278 reports received, 43 were at the Connecticut Department of Public Health's follow-up level which is 30 ug/L of whole blood or 70 ug/g creatinine in urine. One confirmed work-related mercury case was identified during this time period, and the source of mercury was from the employee working on the decommissioning of an out-of-state coal-fired power plant. The testing was ordered by a Connecticut occupational medicine clinic and the workers blood mercury level was 47 ug/L. In 2016, the CT DPH OIISS received 6 work-related asthma reports. This was a decrease in the number of reports from 2015, however only 60% of the total cases are currently entered for analysis. The Occupational Health unit continues to share asthma data from the OIISS with the CT Asthma program each year in April. (Intermediate Outcome)

Advisory Group (Potential Outcome)

CT DPH continues to work to maintain the Connecticut Occupational Health Clinics' meetings which have brought together occupational health providers and other stakeholders in Connecticut to discuss and present on current occupational health topics. Clinics' meetings have been held quarterly by each of the funded Connecticut occupational medicine clinics, and have been generally successful and informative. The findings from the CT OSH-PLAN report developed in the past funding period provide topics for discussion that clinics can use to drive the meetings. The May 12, 2017 meeting was hosted by Middlesex Hospital Occupational and Environmental Medicine clinic and the topic was DOT Redux—Revisiting Guidelines and OSA Concerns. The April 28th meeting focused on Health Promotion and Wellness in Occupational Health and was hosted by Griffin Hospital in Derby CT.

Educational Activities (Potential Outcome)

On March 1, 2017, the DPH Occupational Health program staff convened the Injured Workers and Opioid Use Symposium which brought together over 150 experts in the fields of addiction treatment and recovery, worker injury, and pain management in order to address work-related injury prevention, the prescribing of opioids after injury, the resulting addiction in workers, and alternative strategies. The event was held at Travelers Claim University in Windsor CT.

Regional Collaboration

The 2017 Northeast Regional Surveillance meeting convened on May 8th and 9th. This annual meeting brings together all occupational health surveillance partners from throughout the Northeast states as well as federal partners from NIOSH to discuss various health topics of interest to our states. During the May meeting, Connecticut presented on our collaborations with COSH groups to motivate change and why partnerships are the key to success and how we achieve doing more with less within our organization. In addition, Connecticut presented lead data from 2000 through 2016 that showed substantial increases in the number of elevated blood lead reports received where Connecticut indoor firing ranges were implicated as the source of lead exposure.