

Annual Report: July 2010 – June 2011
Colorado Department of Public Health and Environment
Occupational Health & Safety Surveillance Program (Fundamental Program)

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Main objectives for this first year of program funding were aimed at building occupational health and safety capacity and resources within the Colorado Department of Public Health and Environment (CDPHE), including:

- Analyze, interpret, and disseminate occupational health and safety indicator surveillance data;
- Enhance existing surveillance data, and identify and develop new sources of relevant, or state-specific data;
- Integrate occupational health and safety with existing public health efforts, and datasets;
- Develop and implement prevention activities facilitated through referrals and partnerships with internal and external stakeholders.

Occupational Health Indicators:

We generated and reported Colorado's 2008 Occupational Health Indicator (OHI) data to the National Institute for Occupational Safety and Health (NIOSH) for 17 of the 20 standardized indicators. We also updated Colorado's baseline OHI report, which contains data from 2001 through 2008, including alternate methods for indicators we were unable to collect according to standard methods. This report is currently under review by our Surveillance Advisory Committee and will be published by the end of August 2011. Members are focusing comments on recommendations to enhance the utility of surveillance data through expanded data evaluation or supplemental surveillance projects.

As a new program, we presented a program overview and baseline OHI data at various conferences and meetings throughout the year, reaching over 250 stakeholders. In addition, we hosted three MPH student capstone projects to conduct expanded evaluation of existing surveillance data. The students investigated the topics of 1) Workplace violence and suicide, 2) Occupational health disparities, and 3) Work-related hospitalizations. Findings were shared with external stakeholders at a Worksafe Colorado meeting in June 2011. The hospitalization data review will be vetted internally and published in a surveillance report in August 2011.

Enhance, Identify and Develop Surveillance:

We presented a program briefing to the Colorado Board of Health (BOH) in March 2011. The program was well received and we were invited to return to provide an update and propose rule-making to update Colorado's lead reporting standard in accordance with current case-definitions of the NIOSH Adult Blood Lead Epidemiology Surveillance (ABLES) program. We also submitted a Memorandum of Understanding (MOU) to the ABLES program to begin data submission to the national program in October 2011; we intend to participate and not receive funding. In the next period, we will evaluate our lead surveillance program. Our lab-reporting system currently identifies, on average, 71 cases of adult elevated blood lead levels greater than 10 µg/dL each year.

We entered into an MOU with the Rocky Mountain Poison and Drug Center (RMPDC) for direct access to Colorado case-level data in the National Poison Data System (NPDS). We plan to further evaluate these data in the next year for utility in enhanced surveillance of occupational pesticide and other poisonings.

We submitted a proposal to add the NIOSH-developed industry/occupation questions to Colorado's Behavioral Risk Factor Surveillance Survey (BRFSS). If accepted and funded for inclusion, these questions would be asked of all employed participants in the 2012 Colorado BRFSS (approximately 12,000). In addition to creating a new surveillance source for occupational health, these data are expected to be useful in linking occupation data to a number of other health conditions and behaviors, informing CDC's and Colorado's Winnable Battle initiative and guiding targeted public health policy changes.

In efforts to build staff capacity for enhanced surveillance, we applied for the EPA's Pesticide Incident Surveillance Program (Funding No. OPP-2010-008), but were unsuccessful in securing the grant. We were also

unsuccessful in efforts to recruit an occupational health fellow through both the CDC's Public Health Prevention Service and the CSTE's Applied Epidemiology Fellowship programs.

Integrate with Public Health:

The new Occupational Health & Safety Surveillance Program was integrated into the CDPHE's Environmental Epidemiology Section (renamed to the Environmental Epidemiology and Occupational Health Section). This Section also houses the Environmental Public Health Tracking (EPHT) Program, which utilizes many of the same surveillance data sources and monitors some of the same exposures and health outcomes for the public at large (i.e. lead, pesticide, and carbon monoxide poisoning). As the Colorado EPHT develops its web-based data portal, occupational health and safety messaging and resources are being included where applicable. We also included links to Colorado's OHI data through the CDPHE's central Health Data webpage.

We participated in CDPHE's Public Health Indicators Task Force to assist with development of a dataset intended to guide local-level decision making for public health priorities. We were successful in establishing four occupational health and safety indicators as part of this dataset: 1) County level unemployment rate, 2) County level non-fatal lost-time workers' compensation claims, 3) Regional level work-related hospitalizations, and 4) State-level occupational fatality rates. Colorado's Public Health Improvement Plan calls for this dataset to be available to local health officials and the public by end of 2011.

Partnerships and Referrals:

We convened two meetings of our new Surveillance Advisory Committee. The fifteen committee members represent academic and research institutions, local public and environmental health agencies, industry safety professionals, a labor union, workers' compensation, OSHA's Denver Regional Office, NIOSH's Western States Office, and the Mountain and Plains Education and Research Center, as well as internal surveillance partners at the CDPHE.

Additionally, we continued to facilitate an occupational health and safety professional network, called Worksafe Colorado. This network involves over 60 partners and is the result of Colorado's strategic planning process in 2010 and aims to promote and ensure safe and healthy workplaces for all of Colorado through collaboration, mentorship, and messaging about occupational health and safety issues. Next steps include developing a formal infrastructure to lead network activities.

The partnerships developed through these channels afforded our program the technical assistance and expertise necessary to participate in two on-site investigations for state-run facilities:

- 1) *E.coli* outbreak at a correctional center linked to inmate workers at an on-site dairy: This investigation was a prime example of collaboration across sectors of public health and resulted in several presentations by us and our partners. The final report includes several low- or no-cost administrative changes which would decrease opportunities for worker/inmate illness. Next steps for this investigation include a CDC Morbidity and Mortality Weekly Report and presentation at the upcoming NIOSH Western States Occupational Network (WestON) meeting.
- 2) State office workers hospitalized for acute onset of respiratory illness symptoms: We coordinated technical assistance from the NIOSH Western States Office to review and provide input on the industrial hygiene assessment and hazard communication strategy. This investigation also provided a training opportunity for a preventive medicine resident currently training within our Section.

Additionally, we have been an active contributor to CDPHE's Toxicology Hotline, which responds to public requests for information about chemical or environmental exposures. All calls related to occupational exposures and hazards are forwarded to the Occupational Health Program Coordinator for response or referral.

Plans for next year include partnering with researchers at Colorado State University to conduct a pilot research project on occupational pesticide poisonings, and exploring a process to make referrals of elevated adult blood lead levels to: 1) childhood lead surveillance programs to investigate take-home exposures; 2) OSHA inspectors; and 3) EPA's Renovation, Repair and Painting (RRP) certification program.

PRESENTATIONS:

Towle, M. *Integrating Occupational Health with Mainstream Public Health: Investigation of an Escherichia coli 0111 Outbreak, Colorado 2011*. Presented at the Council of State and Territorial Epidemiologists (CSTE) Annual Conference. Pittsburgh, PA. June 2011.

Warner, A. *Occupational Health & Safety Surveillance Program*. Presented at the Colorado Oil and Gas Conservation Commission meeting. Grand Junction, CO. June 2011.

Campbell, C. Comstock, N. Towle, M. *Integrating Occupational Health with Mainstream Public Health: Investigation of an Escherichia coli 0111 Outbreak, Colorado 2011*. Presented during the Western Regional Epidemiology Network (WREN) webinar. Denver, CO. May 2011.

Towle, M. Warner, A. *Occupational Health & Safety Surveillance in Colorado and the Worksafe Colorado Network*. Presented to the Colorado Risk Management Office Champion Health and Safety Everyday (CHASE) meeting. Denver, CO. April 2011.

Towle, M. Warner, A. *Occupational Health & Safety Surveillance in Colorado and the Worksafe Colorado Network*. Presented at the Colorado Association of Local Public Health Officials (CALPHO) meeting. Denver, CO. April 2011.

Towle, M. *Occupational Health Surveillance in Colorado*. Presented at the Colorado School of Public Health, Introduction to Public Health Surveillance (graduate-level course). Denver, CO. April 2011.

Towle, M. Warner, A. *Colorado's New Occupational Health Surveillance Program*. Presented to the Colorado Board of Health. Denver, CO. March 2011.

Towle, M. *Occupational Health Surveillance in Colorado and the Worksafe Colorado Network*. Presented to staff of National Jewish Health, Division of Environmental and Occupational Health Sciences. Denver, CO. January 2011.

Towle, M. *Occupational Health Surveillance in Colorado and the Worksafe Colorado Network*. Presented to the American Association for Safety Engineers (ASSE) Northern Colorado Chapter. Fort Collins, CO. December 2010.

Campbell, C. Towle, M. *The Colorado Story: Developing Occupational Health Surveillance and Strategic Planning*. Presented at the CSTE Occupational Health Subcommittee and NIOSH State-based Surveillance meeting. Austin, TX. November 2010.

Towle, M. *Occupational Health Surveillance in Colorado and the Worksafe Colorado Network*. Presented at the American Industrial Hygiene Association (AIHA) Rocky Mountain Chapter Technical Conference. Arvada, CO. September 2010.

PUBLICATIONS:

Miller, L. Towle, M. Warner, A. Occupational Health Indicators in Colorado, 2001-2008 (draft). Anticipated online publication August 2011.

Miller, L. Towle, M. Warner, A. Occupational Health and Safety is Public Health and Safety. (Poster) On display in the Colorado Department of Public Health and Environment main lobby. July 2011.

Towle, M. contributor: Green, MK et al. Occupational Highway Transportation Deaths: United States, 2003-2008. CDC Morbidity and Mortality Weekly Report. Vol 60, No 16. April 29, 2011.