

**Colorado Department of Public Health and Environment (CDPHE)
Occupational Health and Safety Surveillance Program (Fundamental Program)
Annual Report: July 2013 – June 2014**

Principal Investigator: Mike Van Dyke, PhD, CIH – (303)692-6375, mikevandyke@state.co.us

Program Manager: Meredith Towle, MPH - (303) 691-4938; meredith.towle@state.co.us

Website: <http://www.colorado.gov/cs/Satellite/CDPHE-DCEED/CBON/1251607754915>

MAJOR OUTPUTS/PRODUCTS

Surveillance Data

- Report Colorado’s 2011 data for 17 of 21 Occupational Health Indicators to NIOSH for publication by the Council of State and Territorial Epidemiologists (CSTE)
- Reported Colorado’s 2013 data for 162 cases of adult elevated blood lead reported to NIOSH’s Adult Blood Lead Epidemiology and Surveillance (ABLES) Program
- Reported Colorado’s 2013 Census of Fatal Occupational Injuries (CFOI) cases to the Bureau of Labor Statistics (BLS)

Publications

Date	Title
Sept 2013	Census of Fatal Occupational Injuries in 2012 (CDPHE press release)
Sept 2013	State and Federal Occupational Health and Safety Programs & Offices in Colorado (CDPHE Brochure)
Sept 2013	Resources to Ensure Worker Health and Safety in Colorado (CDPHE Brochure)
Sept 2013	Funding Opportunities for Occupational Health and Safety Programming in Colorado (CDPHE Brochure)
Jan 2013	Colorado BRFSS: Adding value by adding occupation (NIOSH E-news)
Mar 2014	Adding industry and occupation questions to the Behavioral Risk Factor Surveillance System provides new opportunities in public health surveillance. (Submitted for publication in <i>Public Health Reports</i> , pending peer-review)
Jun 2014	Occupational Health Indicators in Colorado, 2013 Update (CDPHE report, pending publication)

Presentations and Outreach Events

We presented surveillance findings and program overviews at numerous conferences and meetings, resulting in the education and awareness of nearly 700 professionals across various disciplines. We also partnered with WorkSafe Colorado to hold a media event in August 2013 - over 75 people met at the state capital to support a worker health and safety proclamation signed by Governor Hickenlooper.

Date	Conference/Meeting	Title
9/11/2013	Colorado Association of Property and Evidence Technicians	Allergens, mold and marijuana

9/17/2013	American Industrial Hygiene Association – Rocky Mountain Chapter 2013 Technical Conference	Occupational health and safety in Colorado: What's new in public health?
9/19/2013	Colorado Public Health Association 2013 Annual Conference	What's work got to do with it? Incorporating occupational data into your public health improvement plan
9/26/2013	Western Occupational Network 2013 Annual Conference	Potential occupational exposures in marijuana grow houses
9/27/2013	Western Occupational Network 2013 Annual Conference	How CFOI works, from the inside-out
10/01/2013	Education & training session for workers at Colorado correctional center	Uranium in drinking water
10/7/2013	WorkSafe Colorado Group Meeting	What's work got to do with it? Incorporating occupational data into your public health improvement plan
12/4/2014	Colorado Pesticide Applicator Annual Conference	Public health survey to assess acute pesticide poisoning experiences of certified applicators in Colorado, 2012
12/9/2014	NIOSH Western States Office - Internal Staff Meeting	CDPHE Occupational Health & Safety Program Update: Starring the 2012 BRFSS data
1/9/2014	NIOSH BRFSS Workgroup	Colorado 2012 BRFSS: Adding value by adding industry and occupation
2/3/2014	WorkSafe Colorado Group Meeting	Potential occupational exposures in marijuana grow houses
3/18/2014	Colorado Marijuana Industries Health & Safety Workgroup	Public health and marijuana: State role in occupational health and safety
6/24/2014	Council of State and Territorial Epidemiologists 2014 Annual Conference	What's work got to do with it? Incorporating occupational health into local public health assessment and improvement plans
6/24/2014	Council of State and Territorial Epidemiologists 2014 Annual Conference	Potential occupational exposures in marijuana grow houses

PROGRAM ACTIVITIES

Public Health Surveillance

OHI data: We annually report Colorado's state-wide Occupational Health Indicators (OHI) data for 17 of 20 measures. For indicators we are unable to collect using NIOSH standard methods, similar data are published in our report using alternate methods. We also continue annual reporting of adult elevated blood lead level cases to the NIOSH ABLES national dataset. Colorado's Census of Fatal Occupational Injuries (CFOI) also operates under our surveillance program. This unique arrangement allows us to have an active role in improving the CFOI data used for OHI surveillance.

County-level data: We finalized an extensive county- and regional-level profile of OHI measures and other relevant data sources (e.g. the Bureau of Labor Statistic Labor Market Information system) available for sub-state analysis. Results and methods were published on our website for other counties

interested in conducting similar studies. This effort is also informing activities of the CSTE/NIOSH OHI Workgroup, which is drafting guidelines for sub-state level analysis and use of OHI.

BRFSS data: Our report of industry and occupation (I/O) data from the 2012 Colorado Behavioral Risk Factor Surveillance Survey (BRFSS) is under review for publication by a leading public health journal. Findings from this analysis showcase numerous public health opportunities, such as validating reports of influenza vaccination rates among healthcare facility workers, identifying groups of workers that would benefit from health promotion activities (e.g. tobacco cessation and obesity prevention), and identifying occupations and industries that are prime candidates for safety interventions (e.g. seatbelt use policies). With funding support from CDPHE's tobacco cessation and immunization programs, we were successful in adding the NIOSH I/O module on Colorado's 2014 survey.

Worksite investigation: In September 2013, we launched an investigation of hypersensitivity pneumonitis (HP) among local resort spa workers. A complete report with recommendations to prevent further exposure was provided to the employer in November 2013. To our knowledge, these recommendations were adopted soon after.

Potential Outcomes: Our surveillance efforts have expanded the availability of surveillance data at the local, state and national level. Findings can be used to identify trends, showcase the burden of work-related injury and illness, identify data gaps and future research and surveillance needs, and recognize and address employment factors contributing to injury and illness. Our OHI report also contains several recommendations for improving surveillance systems and further analysis of OHI and other relevant data.

Intermediate Outcomes: It is difficult to track use of the data we make publically available. However, we know Colorado OHI data was cited in recent discussion with the Colorado Board of Public Health and data was as also request by local media covering NIOSH's free black lung screening program.

End Outcomes: We successfully secured cross-divisional funding support to add the I/O questions on the 2014 BRFSS. Our spa-workers investigation likely prevented HP exposure and illness for at least 20 workers.

Training and Program Development: We continue to train occupational health and safety professionals and initiate projects to expand our program and impact. We successfully secured a CSTE Applied Epidemiology Fellow, who will work in our program for two years starting in July 2015. We are also hosting an occupational medicine resident who is developing a profile of injury, illness and fatality among Colorado's oil and gas workers. Finally, in partnership with a local day labor organization (El Centro Humanitario) we secured two Occupational Health Internship Program (OHIP) fellows who will begin a project in June 2014 providing safety training to El Centro's clients.

Potential Outcomes: Our OHIP fellows will provide El Centro's worker and employer clients the knowledge and resources to identify common workplace risks, understand health and safety standards, and have awareness about worker rights and employer responsibilities.

Intermediate Outcomes: Our program creates opportunities for occupational health and safety trainees to apply learned principles in epidemiology, research and surveillance.

Partnerships and Collaboration: Several new targeted partnerships have been established this period. We recently convened a 30-person, multi-disciplinary workgroup to identify and address health and safety issues of Colorado's new retail marijuana industries. Internally, we convened a new Injury Surveillance Workgroup at CDPHE, which provides ongoing opportunities to share findings and brainstorm surveillance approaches with other divisions and programs. We are also serving as co-investigators on a funded pilot research grant to analyze Colorado's infectious disease surveillance system through the lens of occupation.

Our Surveillance Advisory Committee met to provide feedback on our program evaluation and plans to apply for enhanced surveillance funding next period.

Potential outcomes: End products of these collaborations provide additional and more targeted information for the prevention of injury and illness in certain industries and among certain populations. Knowledge gained may also facilitate efforts to improve data collection and recording.

Intermediate Outcomes: We contributed to successful procurement of funding for occupational health and safety research in Colorado. Partnerships and collaborations raise awareness and facilitate knowledge sharing about the impact of occupation on health and work-place risks and opportunities for injury and illness prevention. Partnerships also lead to more efficient use and sharing of existing data and resources to advance surveillance and research.

End Outcomes: Creation of new partnerships demonstrates our active role in Colorado's occupational health and safety community. Our advisory committee provides a valuable decision making forum for priority setting.