

Colorado Department of Public Health and Environment (CDPHE)

Occupational Health and Safety Surveillance Program (Fundamental Program)

Annual Report: July 2016- June 2017

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

Program Manager: Roberta Smith, RN, MSPH, CIC, CIH (303) 692-2791  
roberta.smith@state.co.us

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

MAJOR OUTPUTS/ PRODUCTS

Surveillance Data

- Reported Colorado’s 2013 data for 19 of 24 Occupational Health Indicators for NIOSH for publication by the Council of State and Territorial Epidemiologists (CSTE).
- Reported Colorado’s 2015 and 2016 data of adult elevated blood lead to NIOSH’s Adult Blood Lead Epidemiology and Surveillance (ABLES) Program.
- Reported Colorado’s 2015 Census of Fatal Occupational Injuries (CFOI) cases to the Bureau of Labor Statistics (BLS).

Table 1: Publications

Date	Title
January 2017	Census of Fatal Occupational injuries in 2015 (CDPHE press release)
February 2017	Guide for Worker safety and Health in the Marijuana Industry (CDPHE report)
May 2017	Guidelines for the Selection and Use of Environmental Surface Disinfectants in Healthcare. Edited by Erica J. Stewart and <b>Roberta Smith</b> (AIHA publication)

Presentations and Outreach Events

With the publication of the Guide for Worker Safety and Health in the Marijuana Industry the program received much media attention and has participated in webinars, conferences and hosted a training around the information presented in the document. In June, the first health and safety training for the marijuana industry was held in partnership with the Mountains and Plains ERC (Center for Work, Health and Environment). Over 90 workers within the industry attended and registration filled to capacity in just 2 days. The program partnered both within the Colorado Department of Public Health and with a variety of stakeholders within this reporting period. Mike Van Dyke, the program’s principal investigator continued to direct a graduate level course at the Colorado School of Public Health. Program Manager, Roberta Smith also gave occupational health and epidemiology focused lectures at the Colorado School of Public Health. She also gave a variety of lectures in partnership with occupational health, industrial hygiene, and safety related organizations.

**Table 2: Presentations and Outreach Events**

<b>Date</b>	<b>Conference/ Meeting</b>	<b>Title</b>
9/7/2016-9/10/2017	AOHP Annual Conference	"Beyond Bloodborne Pathogens"; "Hazards in Healthcare". <b>Roberta Smith</b> and Cynthia Ellwood
Fall 2017	Department of Environmental and Occupational Health, Colorado School of Public Health course EHOH 6619- Environmental Exposures and Health Effects	Course Director- <b>Mike Van Dyke</b>
10/27/2017	EHOH 6619: Personal Protective Equipment Lecture/ Lab	<b>Roberta Smith</b>
10/28/2017	Marijuana Management Symposium	"Building Safety with Sustainability" <b>Roberta Smith</b>
2/21/2017	EPID 6635 Colorado School of Public Health	"Environmental factors, reservoirs, and modes of transmission" <b>Roberta Smith</b>
4/5/2017	Department of Agriculture Surveyor meeting	"Respiratory Protection" <b>Roberta Smith</b>
4/20/2017	Arapahoe County Planners Office	"Indoor Air Quality" <b>Roberta Smith</b>
4/26/2017	AAOHN National Conference	" Medical Surveillance" <b>Roberta Smith</b>
5/2/2017	Weld County- Long Term Care Facilities	"Bloodborne Pathogens" and "Healthcare Worker Immunizations" <b>Roberta Smith</b> and Rosemary Spence
5/15/2017	CSTE Webinar	"Exploring Occupational Health and Safety Issues in the Marijuana Industry" Meredith Towle, <b>Roberta Smith</b> , James Couch, Bernadette Albanese
5/17/2017	Montrose County- Long Term Care Facilities	"Bloodborne Pathogens" and "Healthcare Worker Immunizations" <b>Roberta Smith</b>
5/23/2017	CDPHE Garden Club	"Ergonomics in the Garden" <b>Roberta Smith</b>
5/25/2017	Boulder County- Long Term Care Facilities	"Bloodborne Pathogens" <b>Roberta Smith</b>
6/5/2017	CSTE National Conference	"Colorado Guidelines for Worker Health and Safety in the Marijuana Industry" <b>Roberta Smith</b>
6/28/2017	Health and Safety in the Marijuana Industry Training	"Hierarchy of Controls" <b>Roberta Smith</b>

## PROGRAM ACTIVITIES

### Public Health Surveillance

**OHI data:** The Colorado program annually reports Colorado's state-wide Occupational Health Indicators (OHI) data for 19 of the 24 indicators. Information on these measures were provided to NIOSH and CSTE. The information was subsequently updated on the Colorado Department of Public Health's website. Colorado's Census of Fatal Occupational Injuries (CFOI) also operates under our surveillance program.

**ABLES data:** We also continue annual reporting of adult elevated blood lead level cases to the NIOSH ABLES national dataset. Due to a lapse in a program manager, both 2015 and 2016 data was submitted in early 2017. We continue to follow up with providers and with patients to collect information on elevated blood lead levels. The program has begun participating in the Colorado Lead Coalition meetings and strategic planning sessions to increase the awareness of the surveillance that is being done for workers in Colorado.

**BRFSS data:** The program is using the 2014 and 2015 BRFSS data to look at reported marijuana use by occupation. This data will be shared in an upcoming MMWR publication. Program manager, Roberta Smith, was selected by CSTE to be a part of a mentoring program to assist in the analysis and submission of research information to the MMWR publication. We expect this analysis to be submitted early August 2017.

**Worksite Investigations/ Public Health Responses** The program assisted in a worksite investigation at the CDPHE Pueblo office. Office occupants had a history of complaints about indoor air quality at the facility. An Industrial Hygienist had done some monitoring previously but complaints continued. A team of people, including Roberta Smith, conducted a site visit to the facility to identify any immediate issues. We provided them recommendations and sent some letters to the landlord to suggest ways that indoor air quality could be improved.

In the Fall of 2016, we had a request for information from an excavation company in Southern Colorado in regards to the potential risk of anthrax to workers who were excavating a gravel pit. The program worked with our Public Health Veterinarian to provide them information on Anthrax and worker potential exposures. This letter was made public and we had a few citizens respond to us with their concerns. These concerns were addressed directly with the citizens making the inquiry.

The program assisted our CDPHE Tox Call hotline with citizen's concerns about exposure scenarios. One was a healthcare worker who was exposed to urine, one caller was concerned about asbestos in flooring, and a few calls have been in regards to Indoor Air Quality. When we can, we address the issues or in some situations we have referred callers to report concern to OSHA. We also assisted a local public health laboratory with information on exposures to Isoflurane when euthanizing potentially rabid bats.

In the Winter of 2016 the building that houses the Occupational Health program had a flood that took out the power supply to the building. Emergency and evacuation procedures were noted to have some inconsistencies from a safety standpoint and the program was pulled in as a consultant to help develop a comprehensive Incident Protocol Manual.

**Fundamental Plus Activities:** Due to a lapse in a program manager, the program is just starting to get on track with the Fundamental Plus activities. The program has had initial meetings with Wyoming and just recently in June, made connections with the new program manager in New Mexico. With the collaboration of the NIOSH extramural program to look at safety in the Oil and Gas Industry, we are starting to build an Oil and Gas focused working group within the CSTE Occupational Health workgroup. Additionally, the occupational health program just began participating with the DJ Basin Safety Council in Northern Colorado. This coalition meets monthly to discuss safety topics in the oil and gas industry. Federal partnerships with NIOSH and our local OSHA region involve collaborations on training and resource development. The program anticipates entering in a formal partnership with NIOSH, OSHA, and the Colorado Oil and Gas Commission concerning occupational health and safety collaborative projects.

**Partnerships and Collaborations:** One of the specific aims of the Colorado Occupational Health Program is to establish and strengthen partnerships. The Colorado program has many strategic partnerships to help set priorities and develop targeted public health actions. Internally within the Colorado Department of Public Health and Environment (CDPHE), the program has engaged in projects with the Healthcare Acquired Infections section, Immunization section, and Air Pollution division. Additionally, data sharing projects for occupational health indicator data collection occur regularly. Partnership within CDPHE is focused on assisting with occupational health related questions, building educational presentations and outreach, and realizing where public health programs overlap with occupational health issues.

Across state departments, the Occupational Health program conducted a half-day training with the Department of Agriculture pesticide regulation staff on respiratory protection. Involvement in activities outside state agencies include partnership with the local section of the American Industrial Hygiene Association to host a training session on the new OSHA silica rule and partnership with the Mountains and Plains Educational Research Center (MAP ERC) on the development of a safety training for marijuana workers and the beginning development of an online training for occupational health nurses sitting for their COHN credential (this also includes a partnership with the Johns Hopkins education center). In addition, the Occupational Health program has also hosted Women in Safety Engineering (WISE) networking meeting and are planning for future meetings. The Occupational Health program is also an active participant with the American Society of Safety Engineers (ASSE) on their Oil and Gas taskforce both at the national level and local level.

**Master Student Mentoring:** Within the reporting timeframe, the program mentored two Masters level student seeking capstone projects. Zach Burns was a student at the Colorado School of Public Health. We assisted him in conducting an ergonomic assessment at a marijuana facility here in Denver. We used REBA and RULA tools along with a discomfort survey to assess the ergonomics of bud trimmers. Our second student, Ted Groff, was seeking a master's degree in biomedical sciences at the University of Denver. In his work we guided him to look at his company's personal exposure silica monitoring data. He used this data to assess the effectiveness of engineering controls in sand delivery within the hydraulic fracturing process. Both student successfully presented their projects and graduated.