SHARP
Safety & Health Assessment & Research for Prevention

Research Findings

Asthma in the Cannabis Industry

Overview

The objective of this study was to describe cases of work-related asthma and associated workplace exposures in the legalized cannabis industry.

We used data from four state-based surveillance systems funded by the U.S. Centers for Disease Control, National Institute of Occupational Safety and Health.

Work-related asthma was classified as new-onset asthma or work-aggravated asthma. New-onset is defined as asthma in persons with no history of asthma, or pre-existing asthma that has been asymptomatic for at least two years. Work-aggravated asthma is defined as pre-existing asthma that is exacerbated by workplace exposures.

Recreational cannabis was legalized in Massachusetts and Washington in 2012, California in 2016, and Michigan in 2018.

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Research for Safe Work

The SHARP Program at the Washington State Department of Labor & Industries partners with business and labor to develop sensible, effective solutions to identify and eliminate industry-wide hazards. Learn more at: lni.wa.gov/safety-health/safety-research/about-sharp

Work-related asthma in the cannabis industry: Findings from California, Massachusetts, Michigan and Washington

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M Pacheco, K Fitzsimmons, C Reeb-Whitaker, J Flattery, J Weinberg, MJ Reilly, S Yiu, C Sack, D Todorov, R Harrison, K Dodd, E Sparer-Fine

Key Findings

- 30 work-related asthma cases were identified:
  - Two cases were fatal. Both were exposed to cannabis dust.
  - Exposure to cannabis dust and/or marijuana plant material was the primary exposure in almost 40% of the cases.
  - Additional exposures include mold and other microorganisms, cleaning chemicals, and disinfectants.
- 13 cases were new-onset asthma, 12 were work-aggravated asthma, and 5 cases could not be classified. Among the new-onset cases, three had worked in the industry for less than one year.
- 70% of cases worked in cultivation and processing, performing tasks such as growing, harvesting, trimming, grinding, processing and packaging.
- Four case reports, one from each state, present detailed evidence for the association of workplace exposures and work-related asthma.

Impact

Respiratory hazards in the cannabis industry are significant and can cause asthma, including two known fatal exposures. Industry best practices following the hierarchy of controls are needed to reduce exposure, particularly for plant dust. Early recognition of asthma by workers, employers, and clinicians is crucial to preventing asthma fatalities.

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