

## Asthma and Cannabis Exposure

Surveillance of work-related asthma including the emergence of a cannabis-associated case series in Washington State

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### Overview

Surveillance for work-related asthma can identify known and emerging exposures that cause this preventable disease.

We identified 784 valid cases using workers' compensation data for the period 2009 through 2016. Work-related asthma was classified as work-aggravated asthma (WAA) or new-onset asthma, which includes occupational asthma (OA) and reactive airways dysfunction syndrome (RADS).

The purpose of this study was to provide an eight-year update for Washington's Work-Related Asthma Surveillance Program, which began in 2001. We describe a new case series for cannabis-associated asthma in the legalized cannabis industry.

### Key Findings

- Among all 784 valid work-related asthma cases identified in the surveillance system, most were classified as work-aggravated asthma (n=529), followed by occupational asthma (n=127) and RADS (n=12).
- The Health Care and Social Assistance Industry had the most cases of work-related asthma (n=170), with 82% classified as work-aggravated asthma.
- The highest proportions of new-onset asthma occurred in Agriculture (33%), Manufacturing (31%) and Construction (30%).
  - Across all industries, leading causes of new-onset asthma were hop plant dust, wood and cedar dust, mineral and inorganic dust, mold, and cleaning materials.

### Cannabis-associated case series:

- Ten cases of cannabis-associated asthma occurred, with cannabis dust, fume, or smoke as the exposure source.
- Seven cases arose in cannabis production workers, following recreational marijuana legalization in 2012. Three workers had new-onset asthma.

### Impact

Surveillance data indicate that workers across many industry sectors continue to be at risk for work-related asthma. The value of state-based asthma surveillance includes the detection of regional emerging issues, such as the cannabis-associated case series that arose two years after the legalization of recreational cannabis. Further research is needed to characterize cannabis exposure and the clinical disease manifestation in these production workers.

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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 [www.Lni.wa.gov/Safety/Research](http://www.Lni.wa.gov/Safety/Research)

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