

Massachusetts Department of Public Health Calls for Tougher Action by Cannabis Industry to Improve Health and Safety After Work-related Asthma Death

The Massachusetts Department of Public Health (DPH) today released an **investigative report** outlining additional steps the cannabis industry should take to prevent work-related asthma and sent a bulletin to health care providers in the Commonwealth urging vigilance in identifying work-related asthma among workers in that industry.

These steps were taken after an investigation conducted by DPH and the Occupational Safety and Health Administration (OSHA) confirmed that the first known occupational asthma fatality in the US cannabis workforce happened last year in Massachusetts. The bulletin reminds providers that they are mandated to report cases of work-related asthma and other respiratory diseases to DPH.

The investigation, which was highlighted in today's Morbidity and Mortality Weekly Report, published by the Centers for Disease Control and Prevention, focused on the circumstances surrounding the death of a 27-year-old production technician who suffered a fatal asthma attack in January 2022 while at work at an indoor cannabis cultivation and processing facility in Massachusetts. The worker's death occurred seven months after she started employment at the facility and three months after she began working as a flower technician, which involved processing and handling whole and ground cannabis flower buds.

While this is the only known asthma death in the US cannabis industry, other cases of non-fatal respiratory disease among Massachusetts workers in that industry have been reported. Cannabis industry workers can be routinely exposed to various occupational respiratory hazards, including cannabis dust, mold, volatile organic compounds, pollen, bacterial endotoxins, pesticides, soil components, and cleaning disinfectants, which can cause and/or exacerbate chronic diseases, like asthma, if not addressed. Massachusetts has more than 500 licensed cannabis industry employers that provides jobs to 22,000 workers.

“The legalized cannabis industry in Massachusetts is relatively new and the impact on the health and safety of workers demands our careful attention,” said Public Health Commissioner Robert Goldstein, MD, PhD. “As this workforce continues to expand, it will require all of us working together – state and federal agencies, regulators, healthcare providers, and the cannabis industry – to improve working conditions for these employees. At DPH, we will continue to identify and follow up on these cases using our long-standing public health surveillance system for work-related respiratory disease and continue to work with our partners on documenting cases, building evidence around workplace hazards, and on intervention and policy.”

Work-related asthma – or asthma caused or exacerbated by exposures at work – is underrecognized in part because work-related asthma symptoms and industry and occupation data are not routinely collected as part of the physical exam or documented in the medical record, the bulletin to health care providers states.

Approximately 17 percent of new-onset adult asthma cases are related to workplace exposures. Regardless of the cause, an estimated 22-to-58 percent of adults with asthma nationwide suffer work-related exacerbations, according to the National Institute for Occupational Safety and Health (NIOSH). In

Massachusetts, an estimated 200,000 adults have work-related asthma, data from DPH's Occupational Health Surveillance Program show.

Early recognition of work-related asthma can lead to both medical and workplace interventions that improve patient outcomes and mitigate exposure to the source.

In its bulletin, DPH urged health care providers to:

- Ask patients with new or worsening respiratory or allergic symptoms what they do for work and how it affects their health.
- Perform diagnostic testing, such as allergy testing, pulmonary imaging, and/or spirometry.
- Recommend workplace changes to avoid further exposure, as avoidance of workplace exposure is imperative.
- Report cases of work-related asthma and other work-related respiratory diseases to DPH, as required by law.

Employers also play a critical role in prevention.

The report on the investigation of the Massachusetts worker's death was prepared by DPH's Fatality Assessment and Control Evaluation (FACE) program, which conducts investigations on the causes of work-related fatalities. The report includes six recommendations for cannabis employers, equipment manufacturers, and the state's Cannabis Control Commission to improve the health and safety of cannabis industry workers.

"This investigation, which is part of an ongoing collaboration between OSHA and DPH, has identified cannabis dust as an occupational allergen with the potential to cause fatal occupational asthma," said Virginia Weaver, MD, MPH, Lead Physician, OSHA Occupational Medicine Resident Elective. "The case indicates the importance of identifying allergens in the workplace as early as possible and the need for experienced healthcare providers to manage workers who develop occupational allergies."

To improve worker safety, the investigative report recommended that:

- Employers should assess and control hazardous materials in the workplace, including asthmagens.
- Employers should ensure that all workers are properly trained about hazardous materials in the workplace.
- Employers should develop and implement a comprehensive safety and health program that addresses hazard recognition, avoidance of unsafe conditions, and proper use of equipment.
- Employers should implement a medical surveillance program to monitor the health of their workers.
- Equipment manufacturers should adopt and implement the concept of Prevention through Design (PtD) to identify potential hazards associated with equipment and then eliminate these hazards through design changes.
- Industry licensing agencies in Massachusetts should consider how they can further support the health and safety of cannabis industry workers.

“Levels of exposure to cannabis dust at work are much higher than what is present during recreational use,” said Emily Sparer-Fine, Director of DPH’s Occupational Health Surveillance Program. “Work processes that include grinding and concentrating an allergen need to be better controlled. It is critical for employers to assess and control exposure to hazardous materials, including the respiratory hazards found in the cannabis processing facilities, such as cannabis dust.”

Employers should utilize the Commonwealth’s Department of Labor Standards’ free and confidential On-Site Consultation service designed to help them recognize and control possible safety and health hazards at their worksites and establish and improve safety and health programs. The goal of the service is to prevent injuries and illnesses that are the result of hazardous workplace conditions and practices.