

## Industry-wide Medical Surveillance In California Flavor Manufacturing Workers: Cross-sectional Results

**K. Kreiss**<sup>1</sup>, **T. J. Kim**<sup>2</sup>, **B. J. Materna**<sup>3</sup>, **J. C. Prudhomme**<sup>3</sup>, **K. B. Fedan**<sup>1</sup>, **N. Sahakian**<sup>1</sup>, **G. Windham**<sup>3</sup>

<sup>1</sup>CDC/NIOSH, Morgantown, WV, United States of America, <sup>2</sup>CDC, Richmond, CA, United States of America, <sup>3</sup>California Dept Public Health, Richmond, CA, United States of America

**Corresponding author's email: [kkreiss@cdc.gov](mailto:kkreiss@cdc.gov)**

**Rationale.** After reports of two cases of bronchiolitis obliterans in flavor manufacturing workers, California health and labor agencies initiated industry-wide surveillance to identify extent of and risk factors for respiratory disease.

**Methods.** We examined cross-sectional questionnaire and spirometry data submitted by companies' physicians for 584 workers in 19 workplaces, of whom 467 (80%) had acceptable data. We compared the prevalence ratios of respiratory symptoms, diagnoses, and abnormal spirometry in workers to a general population sample. We determined personal and workplace risk factors for spirometric obstructive abnormality with odds ratios.

**Results.** Flavoring workers reported no excess of respiratory symptoms or physician diagnoses, but were 2.7 times more likely to have severe airways obstruction on spirometry testing, compared to the general population. Risk factors identified for 18 cases with airways obstruction from six companies included younger age group, Hispanic ethnicity, liquid and powder production work, greater company diacetyl usage, and having a coworker with obstruction.

**Conclusion.** Public health surveillance documented a flavoring industry risk of severe lung disease, justifying preventive interventions to lower flavoring exposures and medical screening for secondary prevention until worker safety is demonstrated.

This abstract is funded by: None

Am J Respir Crit Care Med 181;2010:A5111

Internet address: [www.atsjournals.org](http://www.atsjournals.org)

Online Abstracts Issue