

# How Do Individual Risk Factors Affect PM<sub>2.5</sub>-Associated Wintertime Mortality in Urban Patients With COPD?

## STUDY DESIGN

- Evaluated health records of 19,243 deceased **veterans** with prior **COPD diagnosis**
- Wintertime PM<sub>2.5</sub> assigned to patients based on geocoded addresses
- Associations between acute air pollution and mortality estimated using a time-stratified case-crossover design

## RESULTS

### For Each

*10 µg/m<sub>3</sub> increase in daily wintertime PM<sub>2.5</sub>*



### The Estimated Mortality Risk Was

**1.05 (95% CI, 1.02-1.09)**

Elevated Risk Seen in	OR	95% CI
Older Adults (80-100 years)	1.089	(1.036 – 1.144)
Black Patients	1.089	(0.998 – 1.137)
Obesity	1.089	(1.001 – 1.229)
Coronary Artery Disease	1.089	(1.015 – 1.127)
Diabetes	1.089	(1.000 – 1.116)

**Obesity, coronary artery disease, and diabetes are understudied modifiers of air pollution-related risks for people with existing COPD. These results provide support for future evaluations of these vulnerable groups.**