

# COPD is more prevalent in poor and rural areas of the US

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Living in a rural area and being poor are risk factors for chronic obstructive pulmonary disease (COPD), said Sarath Raju, MD, MPH, Johns Hopkins School of Medicine, Baltimore, Maryland, lead author of a study presented at the 2015 American Thoracic Society International Conference.

The researchers used a nationally representative sample to pinpoint COPD risk factors. "We wanted to identify the prevalence of COPD in urban and [rural areas](#) in the U.S. and determine how residence, region, poverty, race and ethnicity, and other factors influence COPD rates," Dr. Raju said.

Using data from the National Health Interview Survey, the U.S. Census, and the National Center for Health Statistics Urban-Rural Classification Scheme, the 87,701 participants included a population-based sample of adults older than age 40. The study's main outcome was the prevalence of COPD, defined as self-reported emphysema or chronic bronchitis.

The researchers looked at both community-based and individual-based factors that are potential predictors of COPD, such as region, census level poverty, urban/rural residence, fuel sources, age, sex, race/ethnicity, smoking years, household income, home ownership, and education status.

The prevalence of COPD in the study was 7.2%. However, in small metro/rural-poor communities, the prevalence was 11.9%. Rural residence, southern residence, and community poverty were all associated with a greater prevalence of COPD.

When the researchers added individual income to the model, community poverty was no longer significant. Researchers found an association between biomass fuels and COPD in the South, but there was no association in an overall multivariate model.

"Findings suggest regional differences and the need for future disparities research to understand the potential contribution of occupational exposures, fuel sources, and indoor air pollutants to COPD prevalence in poor, rural areas," the researchers concluded.

**More information:** Abstract 63441: The Impact of Poverty and Rural Residence on Chronic Obstructive Pulmonary Disease (COPD) Prevalence: A Nationwide Analysis

Provided by American Thoracic Society

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