



Research: The nation's first scientific study on the relationship between smoking and respiratory disease among Hispanic versus non-Hispanic white (NHW) women

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Disease/Condition: COPD and Emphysema

Both chronic obstructive pulmonary disease (COPD) and emphysema cause obstruction of airflow into and out of the lungs, and frequently exist together. According to the American Lung Association, COPD is the fourth leading cause of death in the U.S., claiming the lives of 127,049 Americans in 2005.

The Lovelace Smokers Cohort (LSC) is a group of more than 2,100 heavy smokers in New Mexico that researchers are following longitudinally to study risk factors for COPD and lung cancer. Using the LSC for benchmarking and for testing possible treatments and diagnostic tests, researchers hope to develop preventive interventions to slow or reverse COPD and lung cancer. The cohort is valuable because it serves as a source of clinical information and biological specimens to answer several research questions.

Using the LSC, the nation's first scientific study on the relationship between smoking and respiratory disease among Hispanic versus non-Hispanic white (NHW) women revealed that NHW women smokers were at greater risk of developing airflow obstruction and diminished lung function than Hispanic women who smoke—a surprising finding given that many diseases more adversely affect ethnic minorities.

The relationship between smoking and respiratory disease has not been well-studied among ethnic minorities in general and in women in particular. The objective of this study was to evaluate the risk of airflow obstruction and to assess lung function among Hispanic and NHW female smokers in a New Mexican group of participants. Those evaluated lived in or near Albuquerque, therefore a relatively large population of Hispanic females was enrolled.

Lead investigators at LRRI, in collaboration with the University of New Mexico School of Medicine, Harvard Medical School, and the University of Southern California, Los Angeles conducted the study, which was financed by the Tobacco Settlement Commission of New Mexico. Of the 1,433 women who participated, 248 (17.3 percent) were Hispanic, 830 (57.9 percent) were current smokers, 517 (36.1 percent) smoked ≥ 40 pack-years, and 422 (29.4 percent) were obese.