# Abstract

**Purpose:** To conduct a needs assessment and develop an action plan to implement early interventions to improve health outcomes of chronic obstructive pulmonary disease (COPD) patients residing in east-central Indiana (IN) and west-central Ohio (OH).

**Sample:** A convenience sample of 70 adult COPD patients in east-central IN and west central OH.

**Method**: The Vulnerable Populations Conceptual Model (VCPM) was used to construct a survey that assessed available resources, relative risk, and health status of COPD patients.The thirty-item survey was distributed in two pulmonary practice sites and a rural hospital’s outpatient services.

**Findings:** The project used descriptive analysis and t-tests. Results demonstrate resource availability mean (M) 7.06 ± 1.88 (SD) out of 0 to 11, relative risks (M) 4.16 ± 1.25 (SD) out of 0 to 9, and health status (M) 5.36 ± 1.60 (SD) out of 0 to 9. Participants who had 2 or more co-morbidities and took 5 or more daily prescriptions were more likely to have increased emergency room (ER) visits and hospital admissions.

**Conclusion:** The results demonstrate the greatest frequencies for resource availability were education level and caregiver support. Low resource scores were found for available health programs and enrollment in them. Smoking and increased sadness were the greatest relative risks. Implications of the project support developing COPD interventions and programs that address smoking cessation, depression screening, and self-management that work to improve the health status of the population and improve their health outcomes.

***Keywords:*** COPD, rural, vulnerable populations, hospitalizations, emergency room visit.