

**EVALUATION OF HEART ATTACK ADMISSIONS
PRE- AND POST- IMPLEMENTATION OF
A SMOKE-FREE INDOOR AIR POLICY**

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Multiple laboratory and epidemiological studies find secondhand smoke exposure causes adverse health outcomes. Additionally, an increasing number of studies at community, state and national levels identify significant reductions in hospital admission rate of acute myocardial infarction (AMI) after implementation of a smoke-free indoor air law. A more complete understanding of the health and other benefits related to implementation of community-wide smoke-free ordinances will increase evidence to support policy change in additional communities.

Purpose: This project examines changes in hospital admissions for AMI before and after implementation of the comprehensive indoor air ordinance in Columbia, MO.

Method: The Hospital Industry Data Institute (HIDI) and Harry S. Truman Memorial Veterans' Hospital provided incidence data for AMI admissions in Columbia, surrounding areas and a regional comparison city without a comprehensive smoke-free indoor air ordinance (Jefferson City, MO) for three years before and two years after implementation of Columbia's smoke-free policy. Poisson analyses tested differences in population-adjusted AMI rates before and after implementation in each population.

Results: Implementation of a smoke-free ordinance in Columbia was associated with a 25% reduction in the rate of acute myocardial infarction ($p < 0.05$), compared to an 18% decrease in areas surrounding Columbia ($p < 0.05$) and a non-significant 11% decline in Jefferson City.

Conclusion: Implementation of a smoke-free ordinance in Columbia, MO is associated with a significant reduction in hospital admissions for AMI among those residing in city limits and surrounding areas.