



## Article Title

### **Tobacco Smoke Pollution in Hospitality Venues Before and After Passage of Statewide Smoke-Free Legislation**

#### Citation

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#### Abstract

In 2012, North Dakota enacted a comprehensive statewide law prohibiting smoking in enclosed public places. Disparities in tobacco control exist in rural areas. This study's objective was to determine the extent to which the passage of a comprehensive, statewide, smoke-free law in a predominantly rural state influenced tobacco smoke pollution in rural and nonrural venues.

#### Design and Sample

A longitudinal cohort design study comparing the levels of tobacco smoke pollution before and after passage of the statewide smoke-free law was conducted in 64 restaurants and bars statewide in North Dakota.

#### Measures

Particulate matter with a median aerodynamic diameter of  $<2.5 \mu\text{m}$  (a valid atmospheric marker of tobacco smoke pollution) was assessed.

#### Results

A significant 83% reduction in tobacco smoke pollution levels occurred after passage of the law. Significant reductions in tobacco smoke pollution levels occurred in each of the rural categories; however, no difference by rurality was noted in the analysis after passage of the law, in contrast to the study before passage.

#### Conclusions

To our knowledge, this was the largest, single, rural postlaw study globally. A comprehensive statewide smoke-free law implemented in North Dakota dramatically decreased the level of tobacco smoke pollution in bars and restaurants.