

Grant County Air Monitoring Study, November 2007

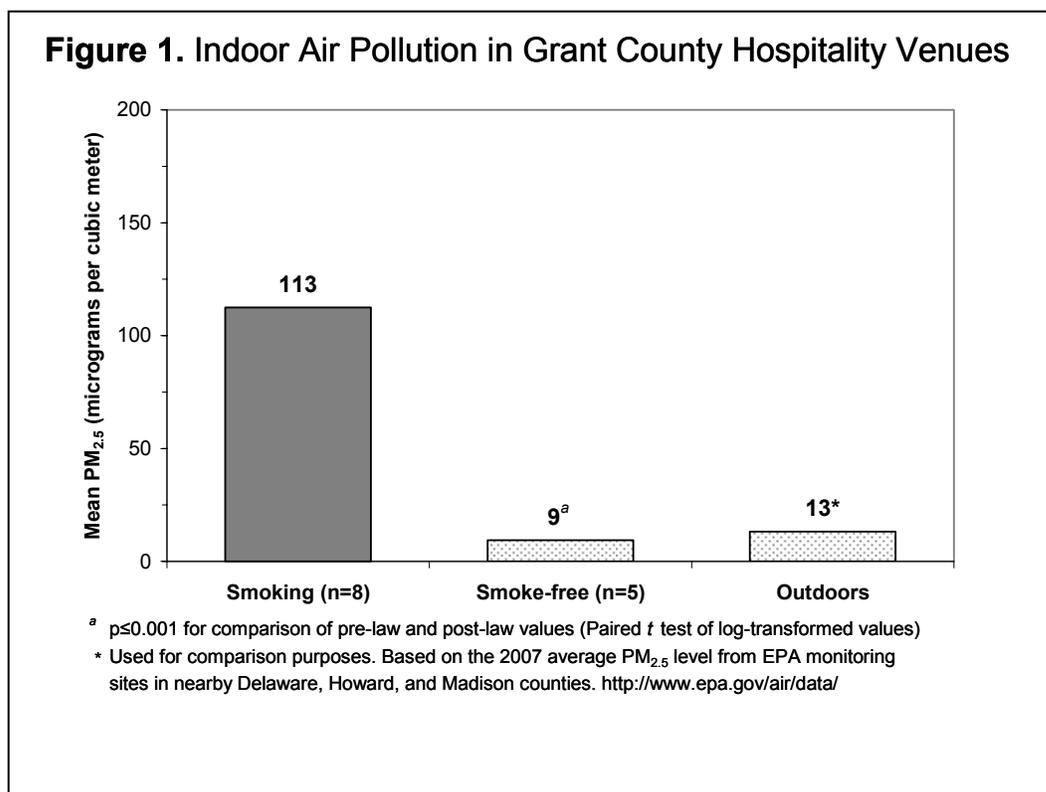
Secondhand smoke (SHS) is a known human carcinogenⁱ, and is responsible for an estimated 50,000 deaths and other illnesses each yearⁱⁱ. Secondhand smoke exposure remains a major public health concern, although it is entirely preventable^{iii,iv}.

Policies requiring smoke free environments are the most effective method for reducing secondhand smoke exposure in public places^v. Currently, 27 states have enacted smoke free workplace laws, which represent approximately 60% of the U.S. population^{vi}.

In order to protect the public's health, the U.S. Environmental Protection Agency (EPA) has set limits of 15 $\mu\text{g}/\text{m}^3$ as the average annual level of $\text{PM}_{2.5}$ exposure and 35 $\mu\text{g}/\text{m}^3$ 24-hour exposure. $\text{PM}_{2.5}$ is the concentration of particulate matter in the air smaller than 2.5 microns in diameter. Particles of this size are released in significant amounts from burning cigarettes and are easily inhaled deep into the lungs.

The study assessed indoor air quality in 13 Grant County venues: bars and restaurants, and other entertainment venues, in November, 2007.

The overall results showed the average level of fine particle indoor air pollution to be 13 times higher in places with indoor smoking compared to smoke-free places.



For more information about the study or the full report please contact Indiana Tobacco Prevention and Cessation at 317-234-1787.

Study Highlights

- The average level of fine particle indoor air pollution was 12.6 times higher in places with indoor smoking compared to smoke-free places. (Mean PM_{2.5} concentration in smoking places 113 µg/m³ versus 9 µg/m³ in smoke-free places)
- Employees in sampled locations were exposed to unhealthy air according to U.S. Environmental Protection Agency (EPA) standards.

Consistent with the findings of the U.S. Surgeon General and the American Society for Heating, Refrigerating, and Air-Conditioning Engineers, this study provides further evidence that indoor smoking causes exposure to harmful levels of indoor air pollution and that comprehensive smoke-free air policies prohibiting indoor smoking are the only effective means to eliminate the health risks from these exposures.

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- ⁱ. National Toxicology Program. 9th Report on Carcinogens 2000. Research Triangle Park, NC: U.S. Department of Health and Human Services, National Institute of Environmental Health Sciences; 2000.
 - ii. CDC. Annual smoking-attributable mortality, years of potential life lost, and economic costs – United States, 1995-1999; MMWR 2002;51(14):300-320.
 - iii. Second national report on human exposure to environmental chemicals. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Environmental Health, 2003.
 - iv. U.S. Department of Health and Human Services. Reducing tobacco use: a report of the Surgeon General. Washington, D.C.: US Government Printing Office, 2000.
 - v. Hopkins DP, Briss PA, Ricard CJ, Husten CG, Carande-Kulis VG, Fielding JE, et al. Reviews of evidence regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke. *Am J Prev Med* 2001;20(2 Suppl):16-66.
 - ^{vi} Americans for Nonsmokers' Rights, January 2, 2008.