

## Secondhand Smoke Exposure in NOLA Bars and Casinos – (Pre Ord) March – May, 2011

### Introduction

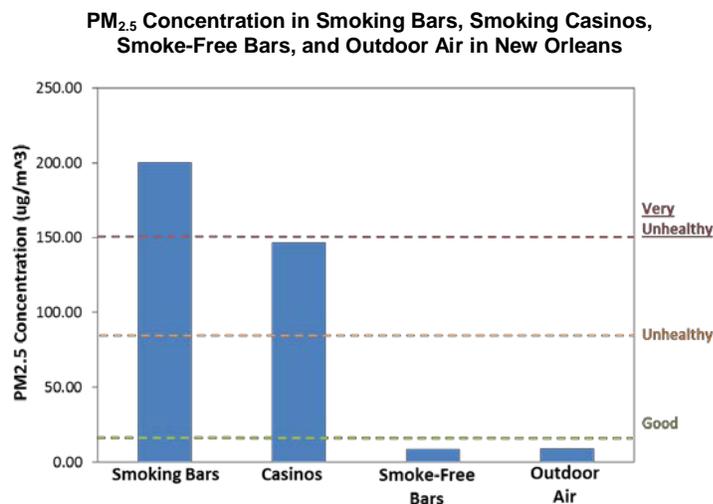
- In order to protect employee health the Louisiana Legislature passed The Smoke-Free Air Act (Act 815) in 2006 which became effective on January 1, 2007.
- Act 815 prohibits smoking in most workplaces and public spaces, but bars and casinos are exempt from compliance.
- This study’s aim was to measure SHS concentration levels in bars and casinos where smoking is still permitted along with a comparison group of smoke-free venues in New Orleans, Louisiana.

### Methods

- The most commonly used environmental markers of SHS exposure are fine particulate matter (particulate matter <2.5  $\mu\text{m}$ ,  $\text{PM}_{2.5}$ ) and gas phase nicotine.
- Direct-reading TSI SidePak AM510 aerosol monitors were used to measure  $\text{PM}_{2.5}$  in a hybrid random/convenience sample of smoking bars, non-smoking bars, and gaming facilities in New Orleans, Louisiana between March and May, 2011.
- $\text{PM}_{2.5}$  was measured in each venue for a minimum of 30 minutes, and need subject monitored and recorded the number and frequency of active smokers during each monitoring period.

### Results

- The average  $\text{PM}_{2.5}$  concentration in smoking bars (n=32), gaming facilities(n=6), and smoke-free bars (n=11) was  $201.7 \mu\text{g}/\text{m}^3$ ,  $147.5 \mu\text{g}/\text{m}^3$  and  $8.6 \mu\text{g}/\text{m}^3$ , respectively.
- For comparison, the average ambient (outdoor air)  $\text{PM}_{2.5}$  concentration measured by the nearest air quality monitoring station over the duration of the study was  $9.3 \mu\text{g}/\text{m}^3$ .



### Conclusions

- In this sample of New Orleans smoking bars  $\text{PM}_{2.5}$  concentration levels were 24 times higher than in smoke-free bars.
- The air quality in smoke-free bars was similar to outdoor levels. There are no occupational exposure standards for SHS, but a useful tool to contextualize SHS concentration levels is to use the U.S. Environmental Protection Agency’s Air Quality Index for ambient  $\text{PM}_{2.5}$ .
- Using these categories, 68% of the sampled of New Orleans smoking venues had unhealthy air quality levels or worse.
- If bars and casinos were made smoke-free, the health risk to employees exposed to SHS would be significantly reduced.