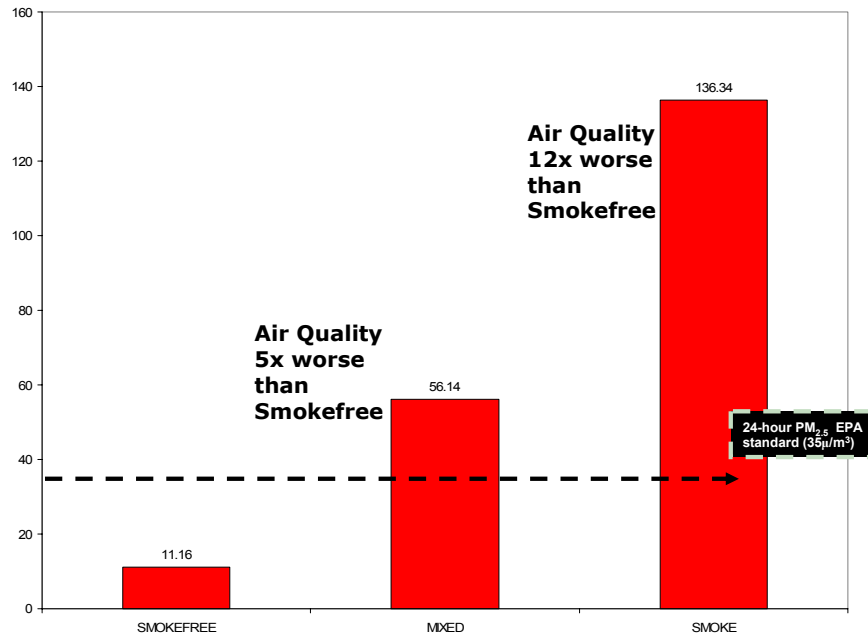


## Executive Summary: Mecklenburg County Indoor Air Quality Monitoring Study



### Introduction and Background Information:

- Secondhand smoke (SHS) contains at least 250 toxic or carcinogenic chemicals
- In the U.S., among those who have never smoked, an estimated 3,000 lung cancer deaths and 35,000 deaths from coronary heart disease directly attributable to SHS occur annually

### Study Design:

- Project design and methodology followed nationally recognized Air Quality Testing protocol of Roswell Park Cancer Institute in Buffalo, New York
- Utilized the TSI SidePak AM510 Personal Aerosol Monitor to measure the levels of particulate matter 2.5 microns in size (PM<sub>2.5</sub>). Particles of this size are released in significant amounts from burning cigarettes and are easily inhaled into the lungs with serious health effects.
- Air quality measurements taken continuously for a minimum of 30 minutes in each of 34 venues, 25 smoking and 9 non-smoking

### Study Results:

- Average level of particulate air pollution in smoking venues in Mecklenburg County is 130µg/m<sup>3</sup>
- EPA maximum limit for daily exposure to particulate pollution is 35µg/m<sup>3</sup>

### Conclusion:

- Hospitality employees in smoking venues in Mecklenburg County are exposed to 4 times higher levels of particulate air pollution solely from occupational exposure than the maximum EPA allowance.
- Air quality in restaurants that allow smoking in designated areas was 5x worse than smoke-free venues, and 12x worse in venues that allow smoking anywhere. One venue was, on average, 28x worse than the average smoke-free venue.