Air Quality Monitoring for Smoke-Free Policy

How to Get Started & How We Can Help

Air quality monitoring (AQM) studies are useful tools for monitoring harmful pollution from secondhand smoke. This document provides an overview of AQM studies and suggests ways to best utilize this research to support smoke-free polciy.

Why monitor air quality?

AQM surveys are used to measure secondhand smoke (SHS) exposure in public places to support the need for strong smoke-free policies and to stimulate high compliance with the law. AQM can be used as a simple, useful tool to stimulate policymakers and other key players to act, as well as increase the general public awareness of the harms of SHS exposure.

You will be using an iQAir *AirVisual Pro* Aerosol Monitor to measure levels of PM2.5 (pollution found in tobacco smoke) in the air. The *AirVisual* monitor will be able to detect pollution from smoke even if one person is smoking in an indoor space and will allow you to compare the air quality in smoking places to 100% smoke-free places.

Consider the following steps to effectively plan an AQM study for smoke-free policy:

1. Familiarize yourself with the national/sub-national smoke-free law, if there is one.
    a. Is it a 100% smoke-free law or does the law allow for designated smoking areas/rooms
    b. If it allows for designated smoking area/rooms, what are the guidelines in place?
2. Determine your objective for monitoring air quality. What story are you trying to illustrate with your data? (Bullets following each story idea provide some strategies).
    a. Objective 1: You have no law, and there is a need to pass a new, strong, smoke-free law
        i. If your smoke-free law is about to be passed, you may also want to compare levels of the same locations before and after the law is implemented.
        ii. Note: These locations may provide baseline data for an evaluation of a law once it has passed. These locations can be monitored again to determine the changes in air quality resulting from the law.

    b. Objective 2: You have a weak law, so there is a need to strengthen an existing smoke-free law
        i. Note: Laws that allow for designated smoking rooms (DSRs)/areas are weak because they don't effectively protect from secondhand smoke.
    c. Objective 3: You have an existing smoke-free law but need to determine whether there is high or low compliance. Is your government effectively enforcing it?
        i. Note: In general, high compliance means that no one is smoking in smoke-free areas.
3. Collect your data based on your strategy. This includes:
    a. **Observational data** (we have a separate set of instructions for this. Comprehensive observational data is crucial for a good analysis report)
        i. Observations include things like the number of people present, the number of cigarettes/other tobacco products being smoked, where the products are being smoked, the presence of signage and ashtrays, other sources of pollution, and other observations that may be relevant o your study)
    b. **Data from the *AirVisual* Aerosol Monitor** (we have a clear set of instructions on how to use the monitor, download data onto a computer and send the results)

How Global Tobacco Research Can Assist

1. Study Design & Methodology Development
    a. Collaborate with local partner(s) to develop study proposal
    b. Finalize methodology following joint discussion
2. Technical Training with Partners
    a. Train participants how to operate the AirVisual Pro
    b. Instruct how to conduct observational data collection
3. Rapid Response to Field Questions
    a. Troubleshooting and workshopping issues during data collection
4. Data Analysis & Presentation of Findings
    a. Factsheet & report development
    b. Conference abstract & peer reviewed paper submission (if applicable)