Preparing for Conversations about Personal Air Sensors

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MISSION

Lead and assist Mecklenburg County, NC towards **meeting and maintaining compliance** with the health-based National Ambient Air Quality Standards.
It’s 2013. Sensor technology is on the horizon. What should we do?
Student-led Research on Sensor Technology

2013 - Initial Research
- Industry overview (40 devices)
- Possible applications
- Challenges

2014 – Sensor Testing Begins
- Data collection started Oct. 28, 2014
- Two applications
- Working out the kinks

2015 – Collocation Focus
- Multiple sets of sensors
- Two Sample T Test
- Data collection ended May 27, 2016
What We Learned Through Our Research

• Emerging Technology = Work in Progress

• Difficult to Compare Data to Reference Points
  • Units of measure
  • Averaging time
It’s 2016. Sensor technology is HERE. What should we do?

Proactive

Reactive
Preparing for Conversations About Sensors

Develop an internal guidance document that addresses the following:

• MCAQ’s understanding of the “state of the science” of personal air sensors (reliability, accuracy, etc.);
• How sensor differs from MCAQ’s monitoring network;
• **Recommended uses for air sensors;**
• **Protocol for addressing concerns or questions about “high” readings on sensors** (i.e. how to interpret sensor readings and data).