Engaging School Communities in Air Sensors: Love My Air Denver

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Intros

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State of air quality & asthma in Denver

• Denver, Colorado has the 24th worst air quality among major US cities
• Only 53% of Denver residents realize the potential effects of poor air quality
• Denver families spend an average of $3,100 a year on asthma-related medical costs
• Denver Public Schools (DPS) has an asthma prevalence of 10.8%

Photos: Denver Post
Program Overview

**The Solution** Love My Air Denver program, in partnership with Denver Public Schools (DPS), aims to reduce air pollution and limit exposure through behavior change, advocacy, and community engagement.

**The Funding** Sponsored by the 2018 Bloomberg Mayors Challenge- $1 million grant award funding the program through 2021.
Menu of Options

- Air quality sensor (PM$_{2.5}$ measurements)
- Air quality data dashboard - DenverAQ.com
- Customized programming
- Developed with teachers and nurses
Educational Programs

• Nurse toolkits
• K-5 curriculum
• 6-12 curriculum (includes handheld sensors, AQTreks PAMs)
• Community initiatives & competitions
Intervention Programs

• Indoor Day Action Plan
• Safe Routes to School Program
• Anti-idling campaigns & signage (custom artwork)
• Low-emissions events
COVID-19 Pivot - Virtual air quality curriculum

• Developed with contractor & teachers
• Updates for the 20-21 Virtual School Year:
  • Written curriculum
  • Teacher’s guides
  • Video labs
  • Case studies
  • Ability to request virtual presentations (Ask an air quality scientist)
Through newsletters, social media posts, and the app, promote education to encourage behaviors that improve outdoor and indoor air pollution such as:

- Ventilating while cooking
- Not “warming up” vehicle in the winter
- Reducing exercise near busy roads
- Reducing use of firepits and burning waste
- Mowing the lawn after 5 pm
- Using air quality forecasting to make decisions
COVID-19 Pivot- App Development

- Real time access to current air quality info, historical data, and forecasting
- Push notifications
  - Influence behavior change
  - Receive feedback from users to refine programming and data communication
- User reporting tools for submission of information related to:
  - User action taken in response to air quality events
  - User reporting of symptoms
  - Complaint reporting
  - Social aspects
  - Upload feature for user submission of photos
What’s Next?

• Incorporate community feedback to continue to evolve the program for a COVID-19 world
• Scale up to 40 schools in Denver by 2021
• Launch Love My Air App
• Increase replicability in other municipalities
  • Love My Air Replication Toolkit
  • No-cost licensing agreement
What's Next?

Love My Air Replication Toolkit
- Engagement Toolkit
- Visual Design Elements
- Education Toolkit
- Public Health Toolkit

No-cost Licensing Agreement
- Access to Love My Air logos (Spanish & English)
- Access to Love My Air Network. Idea-share with other replicating entities.

Replication Toolkit Summary:
The mission of Love My Air is to empower communities to live better, longer by reducing air pollution and limiting exposure through behavior change, advocacy, and community engagement. To empower more communities, Love My Air has created a replication toolkit to provide a central location for all outreach, education, and public health documents needed to launch the Love My Air program in your community. This toolkit will guide your organization as it launches the Love My Air program. The replication toolkit is comprised of an Engagement toolkit, Education toolkit, and Public Health toolkit. The components of each toolkit are outlined below.

Engagement Toolkit:
- Newsletter Template
- Press Release Template
- 3-Month Social Media Campaign Template
- Public Service Announcement Template
- Program Evaluation Template
- Letter Template for Parents/Staff/School Community

Visual Aids:
- Rack Card (Flyer)
- Love My Air Particulate Matter 2.5 Infographic
- Love My Air Logos (English, Spanish)

Education Toolkit:
- Love My Air Curriculum
- Love My Air Power Point Presentation

Public Health Toolkit:
- Anti-Idling Campaign Template & Sign Contest
- Nurse toolkit: one-pager about air quality, AQ management plan, guidance for students with asthma
- Common Air Pollutants Poster
Thank You!

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