

Empowering Communities: Installing Air Monitors in North Birmingham, AL

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Logic Model

Outcomes

- GASP will release an updated Air Quality Report that includes data from North Birmingham neighborhoods where air quality monitors previously didn't exist.

Outputs

- Installed five Purple Air Monitors across North Birmingham.
- Educated five Air Keepers on air pollution and its health effects.
- Trained Air Keepers to read the air quality data using the Purple Air Monitor App.
- Empowered residents to report air pollution concerns to authorities.

Activities

- Installation of Purple Air Monitors across North Birmingham
- Educating Air Keepers on air pollution and its health effects
- Training Air Keepers to read the air quality data using the Purple Air Monitor App
- Empowering residents to report air pollution concerns to authorities

Inputs

- 20 Digital Purple Air Monitors
- Training materials and educational resources
- Community partnerships – The Greater Birmingham Alliance to Stop Pollution (GASP)
- Citizen scientists- Air Keepers

Introduction

North Birmingham, comprised of six neighborhoods in Jefferson County, Alabama, exemplifies environmental injustice and health inequity. The area has been plagued by industrial pollution, notably from the 35th Avenue Superfund Site, significantly impacting the environment and raising serious health concerns among residents (Blau & Loeffler, 2022). For over a century, industrial plants in Birmingham have polluted the air and land in its historic Black communities, disproportionately putting African American residents at risk of sinus headaches, respiratory infections, exacerbated symptoms of chronic obstructive pulmonary disease (COPD), asthma, and cancer (Allen et al., 2019; Henderson & Wells, 2021).



.Digital Purple Air Map

Impact

- Increased Community Awareness of Air Pollution and its Health Effects
- Enhanced Residents' Ability to Interpret Air Quality Data Using the Purple Air Monitor App
- Increased Reporting of Pollution Concerns to Local Authorities

Sustainability Plan

A strong relationship will be established with the citizen scientists / air keepers through GASP's Community Science Program. Handout materials about the importance of continuing the monitoring of particulate matter will be provided to citizen scientists / air keepers. Additionally, a few workshops will be conducted on the importance of continuously monitoring air quality.

Critical Assessment

Engaging with the North Birmingham community was initially challenging, but partnering with GASP helped overcome this by building trust through active participation in community events. This experience reinforced the importance of relationship-building and showed me that empowering communities with knowledge and technology fosters meaningful environmental advocacy, strengthening my commitment to advancing health equity through community engagement and data-driven approaches.



Installed Purple Air Monitor

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