

Examining Environmental Exposures to Address Respiratory Health Disparities in an East Nashville Community

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Located in the East Nashville Community, The James A Cayce Homes is Nashville's largest public housing community with over 2,400 residents. The population is impacted by air pollution sources, including Toxic Release Inventory (TRI) facilities, Interstate highways, and criteria air pollutant releasers.

Residents, especially minor children, suffer disproportionately high rates of asthma.

The primary objectives of this project are to:

- Directly involve stakeholders in obtaining **indoor** and **ambient** air environmental exposure data so that evidenced-based education and intervention strategies can be employed
- Discuss with stakeholders **pollutant exposure similarities** among targeted households.
- Discuss with stakeholders **correlations** between pollutant **exposure** and **asthma** exacerbation.
- Ensure that stakeholders fully understand the **spatial relationship** between their health and air quality in their community.

Preliminary findings are as follows:

- There is a significant presence of indoor air pollutants that may be impacting residents' health.
- Toxic air outdoor pollutants are present in concentrations that may affecting residents' health.
- Survey results indicate that stakeholders' awareness of the impacts of indoor and outdoor air pollution has been raised significantly.

Current and future activities based upon preliminary findings are as follows:

- Residents have been informed about the potential health effects associated with the indoor and outdoor pollutants to which they are likely being exposed daily.

- Stakeholders have been invited to attend workshops where they learn ways to mitigate the impacts of indoor air pollution via behavioral changes.
- Findings are being shared with local government health and housing authorities.