



Rhode Island Asthma & Air Quality Projects

**Rhode Island Asthma Control Program
Rhode Island Department of Health**

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Program Manager**

**Saturday, October 7th
ELI IAQ Workshop
Washington, DC**

Project Overview



Project Title: *Monitoring Indoor and Outdoor Air Quality for Communities Affected by Asthma in Providence, RI*

Project Description:

We will measure the impact of air quality on asthma outcomes among underserved communities living in Central, South, and West Elmwood Providence.

The project will involve conducting air quality monitoring by installing air quality monitors at public housing developments and organizations within these communities and will measure both indoor and outdoor air quality.

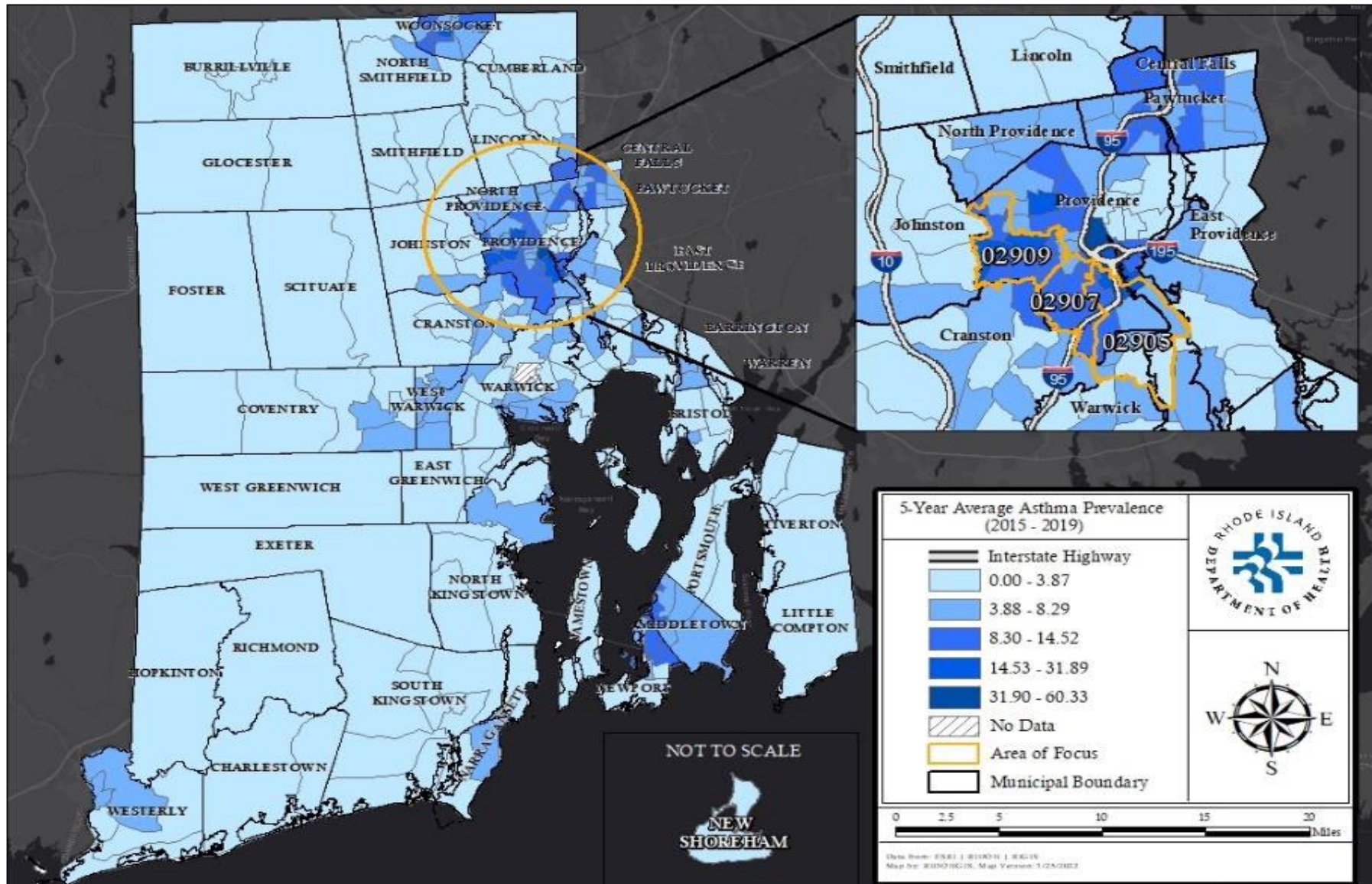
Project Overview (Cont.)



Project Location:

- 3 Health Equity Zones
 - One Neighborhood Builders
 - West Elmwood Housing Development Corporation
 - Family Services of Rhode Island
- 3 public housing family developments (PHA)
 - Coddington Court
 - Hartford Park
 - Roger Williams
- **Air Pollutant Scope:** PM_{2.5}
- **Project Period:** 7/1/23-6/30/2025
- **Funding from EPA:** \$500,000

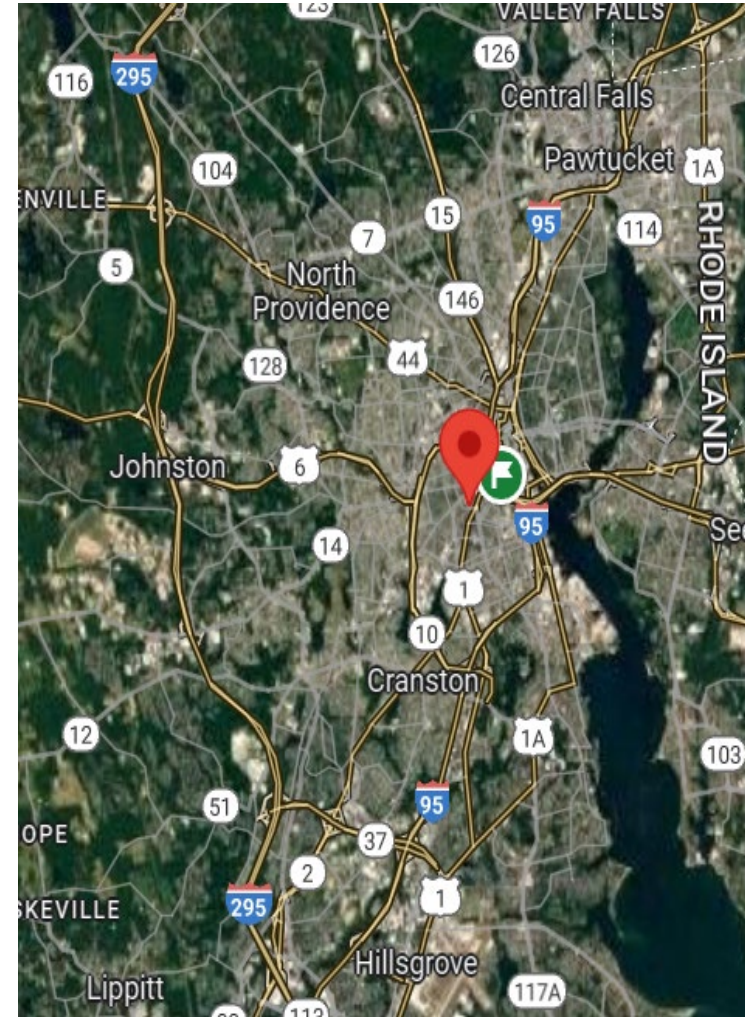
Project Overview (Cont.)



Public Housing Properties



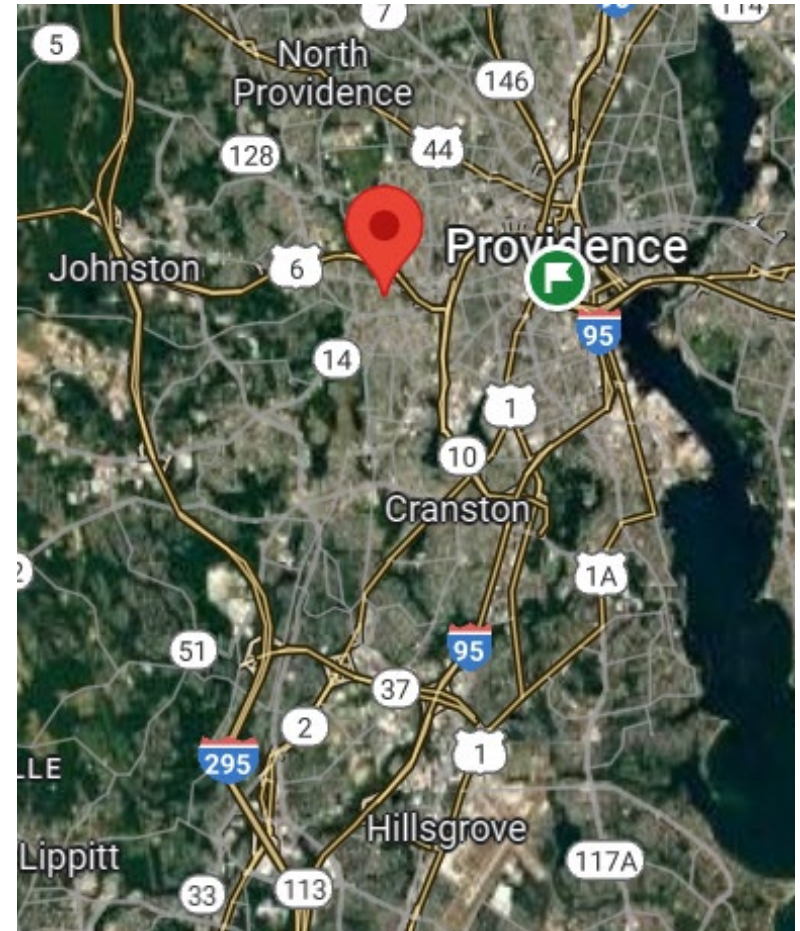
Codding Court Housing Development



Public Housing Properties



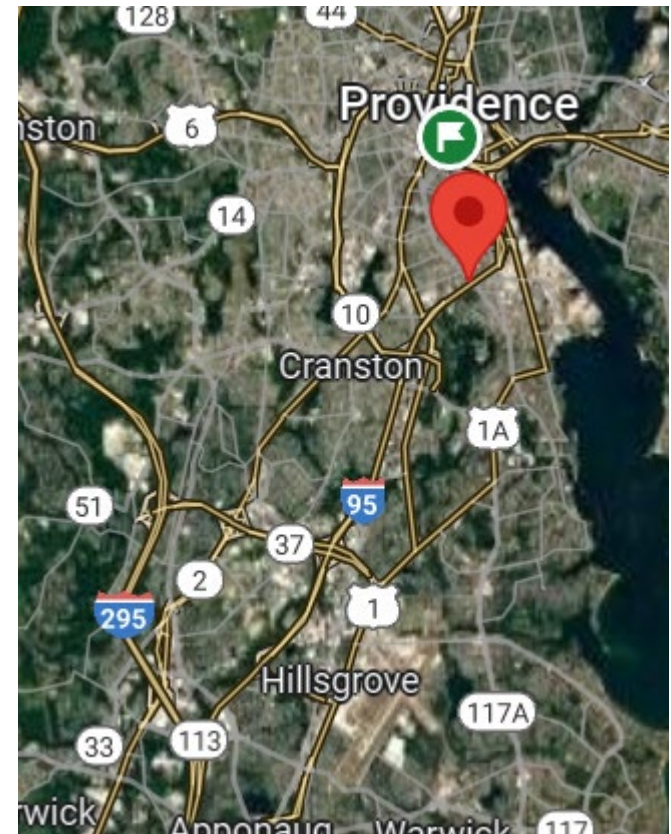
Hartford Park Housing Development



Public Housing Properties



Roger Williams Housing Development



Overarching Goal 4: *Ensure Clean and Healthy Air for All Communities*

Expected Outputs/Activities:

- Establish relationships and participate in educational activities with key partners
- Identify and recruit up to 50 eligible participants living in 3 of PHA's family developments
- Work with 3 HEZs to provide informational sessions on air quality and asthma among pediatric patient population
- Work with HousingWorks RI to develop 3 informational sessions on air quality and asthma to 3 HEZ communities

Expected Outcomes

- Short-Term Outcomes

- Increase community awareness about air pollution and its impact on asthma by 100%
- Increase access to information about air quality, asthma, and healthy housing by 100%

- Intermediate Outcomes

- Invite all PHA, HEZs, and HWRI representatives to the Asthma Learning Collaborative and RI Strategic Asthma Planning Committee meetings and achieve at least 90% attendance
- Develop curricula on asthma, air quality and healthy housing that can be provided to each of the 3 HEZ collaboratives

Workplan



Expected Output/Activity:

- **Work with PHA and HEZs to install 40 ambient outdoor air quality monitors (20 at PHA and 20 at community sites)**
- **Expected Outcomes:**
 - Short Term Outcomes:
 - Identify PM2.5 air pollution at each of the 3 PHA developments
 - Increase PHA residents' awareness and knowledge about PM2.5 air pollution and its impact on asthma by 100%

Workplan



Expected Output/Activity:

- **Identify PM_{2.5} air pollution from the outdoor air quality monitors**

Short-term Outcome:

- Increase community awareness of PM_{2.5} air pollution and impact on asthma by 100%

Intermediate Outcomes:

- Develop 2 state and local policies on air quality
- Work with RIDOT, RIPTA and RIDEM to mitigate air pollution
- Collaborate with 3 HEZs to mitigate PM_{2.5} air pollution within the 3 communities
- Identify the local factors that lead to increased outdoor exposure to particulates

Long-term Outcomes

- Develop 2 state and local policies on air quality
- Ensure sustainability for this project for future implementation across other communities in the state
- Reduction of human exposure to air pollution
- Reduction in the prevalence of asthma and/or the incidence of asthma hospital visits.

Workplan



Expected Output/Activity:

- **Analyze and disseminate air quality data to each of the 3 HEZs**

Short-term Outcome:

- Increase community awareness of PM_{2.5} air pollution and its impact on asthma
- Increase community awareness about IAQ, asthma, and healthy housing
- Increase access to information and tools that increase understanding and reduction of environmental triggers that can exacerbate asthma

Intermediate Outcomes:

- Community action to mitigate PM_{2.5} air pollution within the 3 HEZs

Long-term Outcomes

- Work with policymakers on improving air quality within the PHA and the HEZ sites

Workplan



Expected Output/Activity:

- **Ensure that up to 50 program participants from PHA receive updated AAPs**

Short-term Outcomes:

- Increase use of AAPs by 100% for all program participants and community members identified as having asthma
- Include exposure to PM_{2.5} and other environmental triggers, especially including air pollution on AAPs by 100%
- Update the RIDOH AAP to include air quality and understanding the impact of air quality on a person's asthma

Overarching Goal 4.2: *Reduce Exposure to Radiation and Improve Indoor Air*

Expected Output/Activity:

- Work with HEZs and PHA to provide education on air quality, asthma, and healthy housing

Short-Term Outcomes

- Increase community awareness about indoor air quality, asthma and healthy housing by 100%
- Increase access to information and tools that increase the understanding and reduction of environmental triggers that can exacerbate asthma by 100%

Workplan



Expected Output/Activity:

- Install 70 indoor air quality monitors (50 monitors for PHA households and 20 monitors for community sites)

Short-Term Outcomes

- Identify PM2.5 indoor air pollutants from up to 70 air monitors installed

Workplan



Expected Output/Activity:

- **Analyze and disseminate IAQ data through PHA and HEZs**

Short-term Outcomes:

- Increase community awareness about IAQ, asthma, and healthy housing by 100%
- Increase access to information and tools that increase the understanding and reduction of environmental triggers that can exacerbate asthma by 100%

Intermediate Outcomes:

- Develop 2 environmental mitigation actions from 100% of the parties responsible for PM_{2.5} air pollution
- Develop and implement 3 community action plans to mitigate PM_{2.5} air pollution across the 3 HEZs

Long-term Outcomes

- Develop and implement 2 state and local policy actions on indoor air quality, specifically pertaining to exposure to PM_{2.5} air pollution

Workplan



Expected Output/Activity:

- **Install air purifiers for up to 50 PHA residents**

Short-term Outcomes:

- Increase community awareness about the use of air filtration to reduce exposure to PM_{2.5} air pollution by 100%

Long-term Outcomes

- Work with policymakers on improving air quality and filtration within public housing and community settings

Workplan Milestones



Milestone/Activity Description:

- RIACP will partner with PHA, HEZs, and HWRI to plan and implement the project to measure the impact of air quality on asthma outcomes
- Air quality monitoring data will be collected and analyzed by the Data Manager and the Yale School of Public Health
- Success will be measured during the entire project before monitors are installed, during, and after air purifiers are provided by conducting ACT for participants to measure the impact of air quality on asthma outcomes

EPA: G2G Grant Application



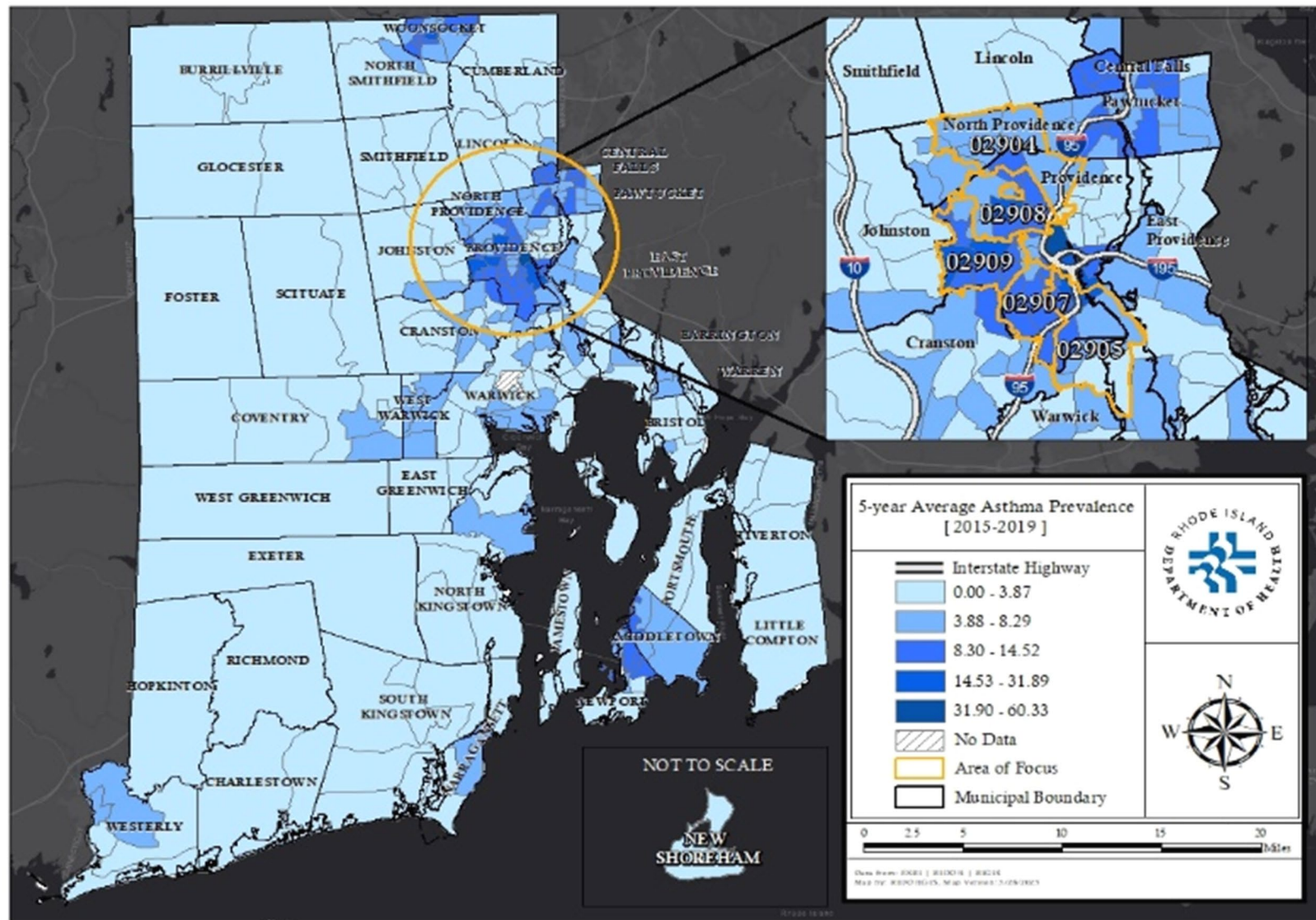
Project Title: *Fresh Air Providence: Improving Air Quality for Environmental Justice Communities Disproportionately Affected by Asthma in Providence, RI*

Project Period: 12/1/23-11/30/26

Project Proposal:

- Install low cost and passive air quality sensors, electric stoves, and air purifiers within single- and multi-family public housing residences in Providence, RI
- Reduce exposure to nitrogen oxide, semivolatile organic compounds and particulate matter within homes located in areas with a high burden of asthma and poor air quality
- Develop a health impact assessment for housing authorities to replace natural gas stoves with electric stoves

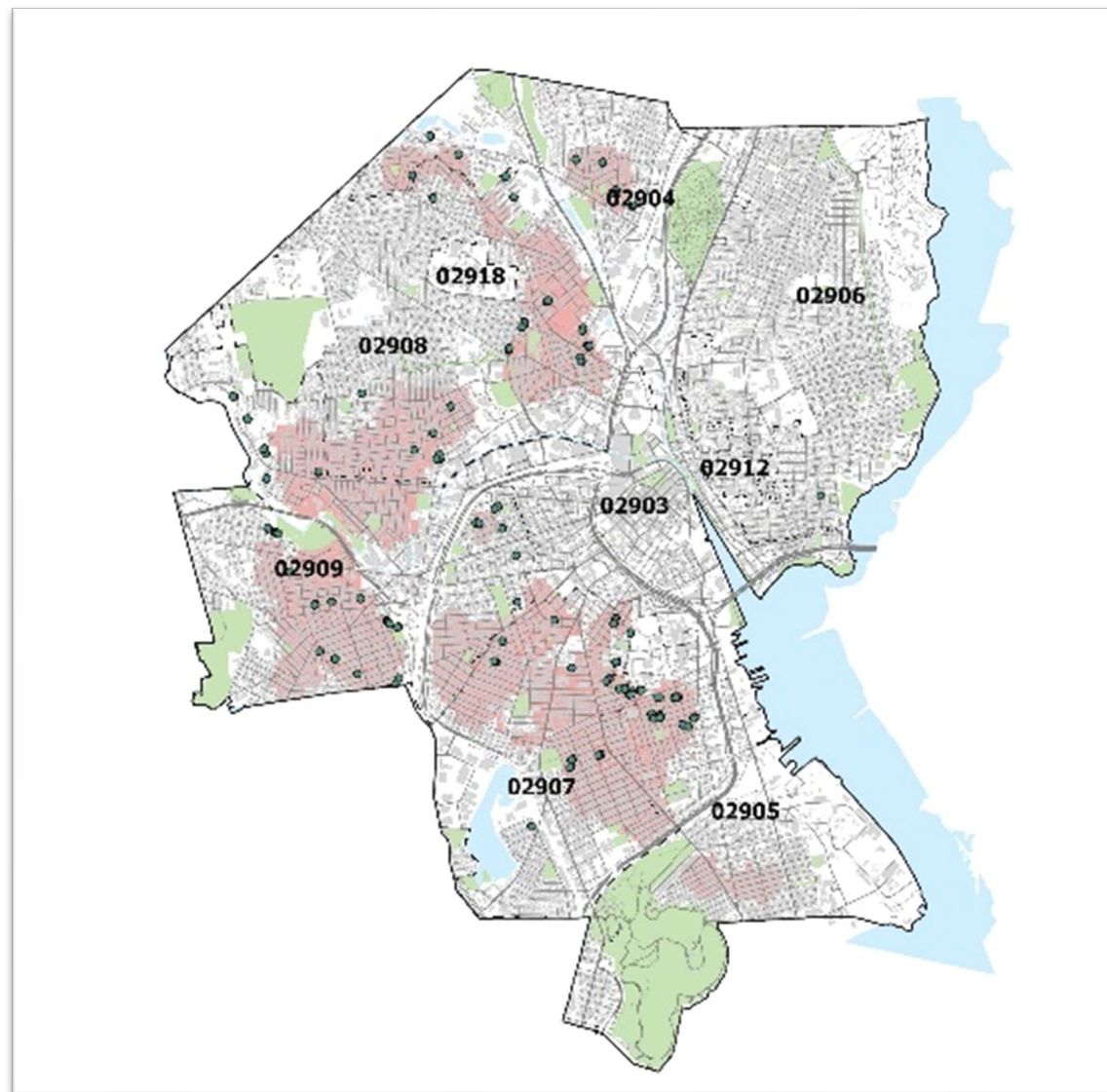
EPA: G2G Grant Application



EPA: G2G Grant Application



PHA Scattered
Site Properties
and Asthma
Hotspot Regions
of Providence, RI



Thank You from the RIDOH Asthma Control Program

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