

Developing technological solutions to improve indoor air quality and thermal comfort in urban communities

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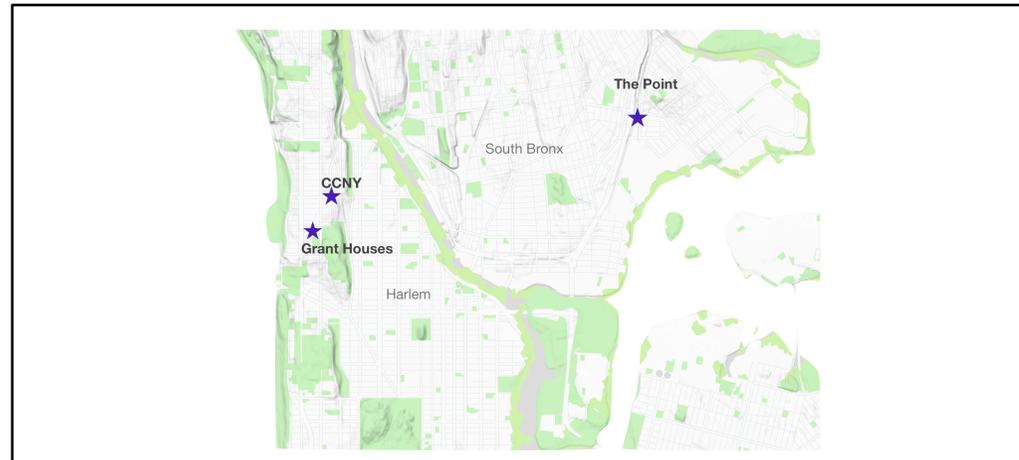
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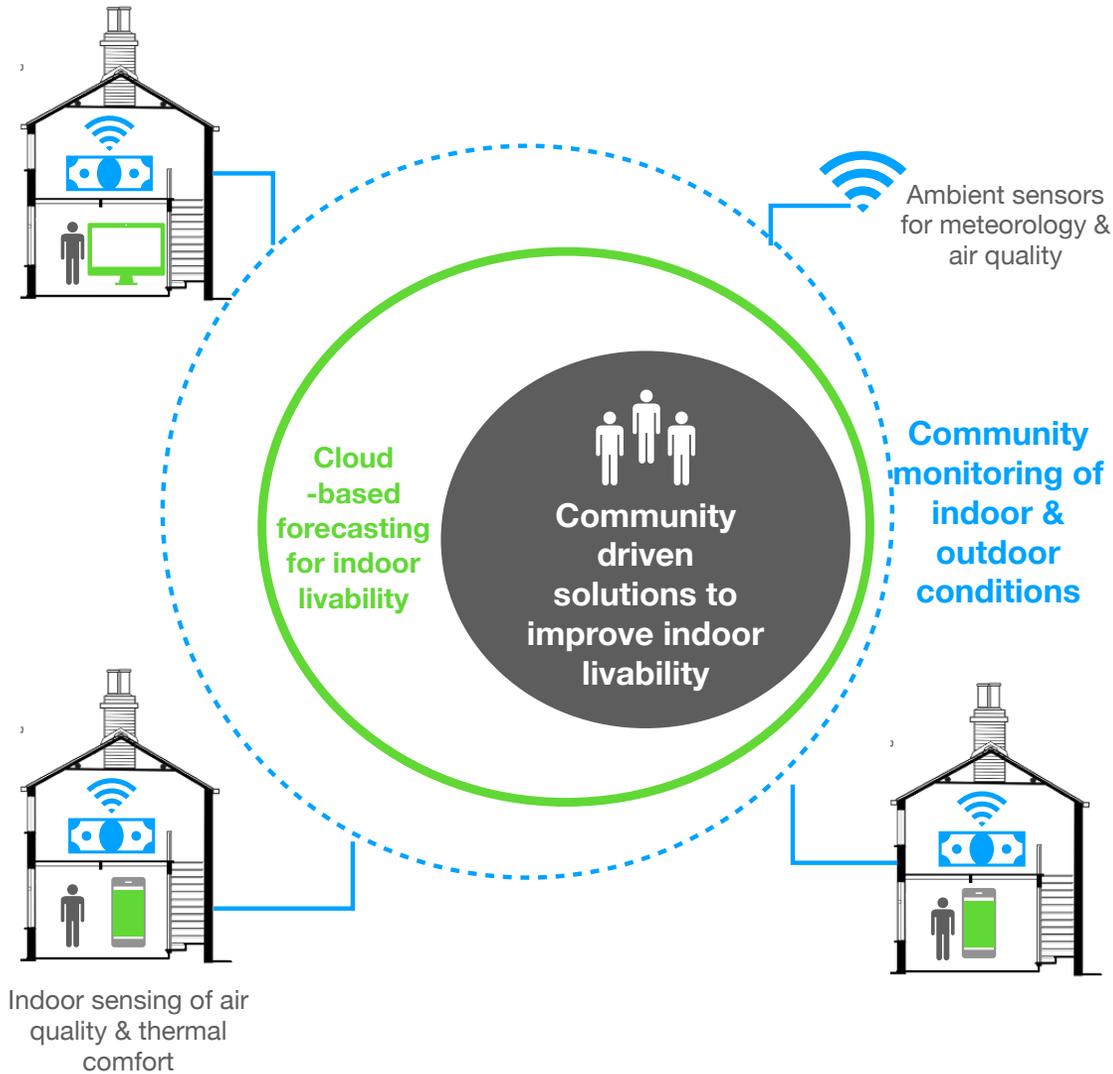
Community Partners (Name, Institution)

The Point, South Bronx Social/Environmental Justice Org.

Grant Houses, Community Center in Harlem



Project Overview



Project Vision

A community monitoring campaign to study the interlinkages between indoor and outdoor environments for heat and air quality

A community driven framework to develop novel solutions to reduce exposure to extreme heat and poor indoor air quality

Project Overview

Use-Inspired Research

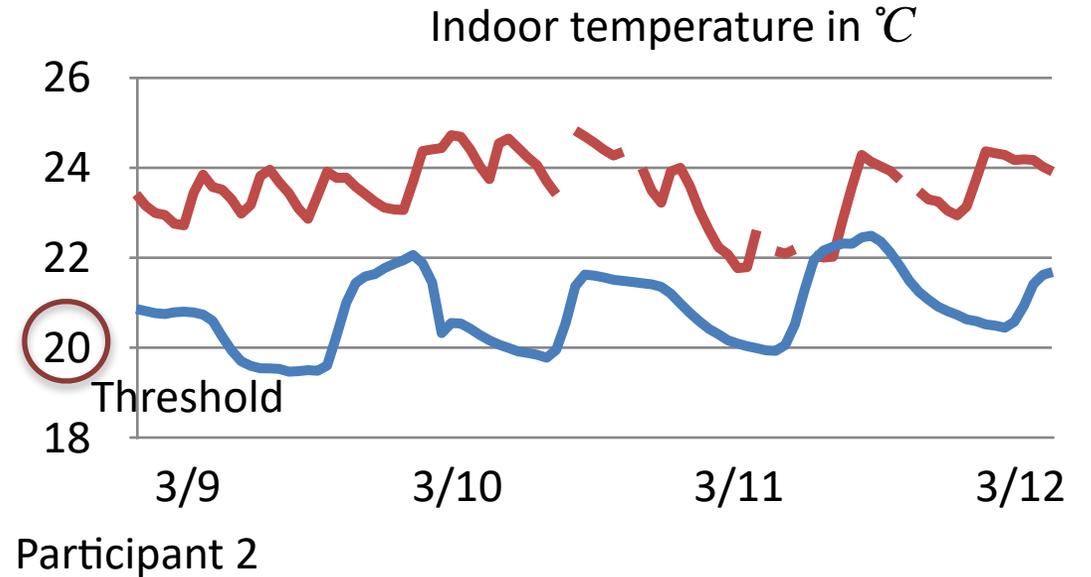
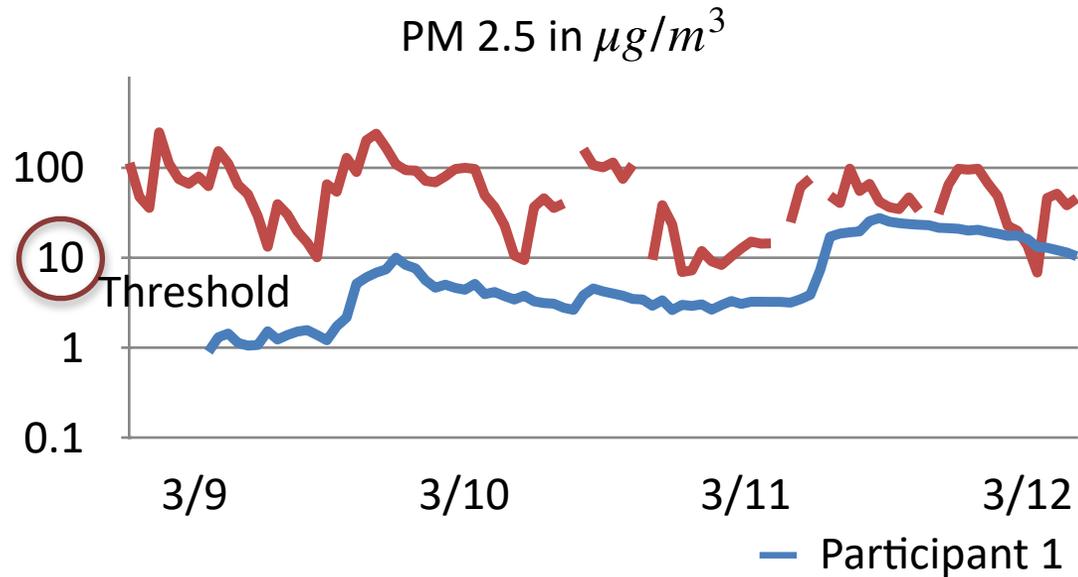
Residents living in South Bronx and Harlem, NYC experience very high asthma rates. Both are working class neighborhoods whose residents are predominantly people of color. We contacted social and environmental justice organizations in the neighborhood about addressing these severe issues. The Point community and The Grant Houses, along with support from the President of the Borough of Manhattan endorsed our idea and were eager to participate in the project.

(1-2 bullets addressing this)

PG Activities

- Chart a monitoring plan with the community partners
- Develop a questionnaire in partnership with the community organization to understand and organize the issues faced by residents in the community
- Set up indoor and outdoor sensors and communication tools to monitor heat and air quality
- Distribute the questionnaire to the community members
- Analyze the preliminary data
- Interview individual community members about their experience with the sensor and the visual language used for communication
- Organize a virtual/in-person workshop to synthesize the results
- Develop a strategic framework in partnership with the community members to improve indoor livability
- Apply for the IRG

Project Update



- We have now distributed our monitors to multiple residents in the community
- We are currently interviewing community participants on the impact of air quality in their everyday life and their vision for improving their indoor livability.
- We are also interviewing residents about their ideas on which technological solution would be appropriate for them
- We are also collaborating with other researchers who work in the neighborhood on issues related to environmental and social justice.

Project Evolution

How have planning grant activities shaped or evolved the long-term vision of the project? Specifically, we want to understand how engagement with your team (e.g., researchers and community partners) and feedback from the target community is informing your vision for the future IRG project. Give one or two specific examples.

Examples:

“We learned how much air quality issues impact the daily lives of people in the community and how committed they are to change the current situation. All community participants in our monitoring campaign have someone in their household who suffer from an acute respiratory disease and the issue is personal.”

“In our initial conversations with the community participants, they want to have tangible solutions to the problem. This has encouraged us to expand the scope of the IRG, where we want to test the feasibility of ventilation and air purification systems in improving indoor air quality without any side effects.”