Using Air Monitoring Projects to Plant Social, Academic, and Economic Seeds in African American Youth

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Community Health Aligning Revitalization Resilience & Sustainability
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Agenda

• Social Determinants of Health
• Challenges Faced in Low- and Moderate-Income Earning Communities
• Community Based Participatory Research
• Citizen Science Air Monitoring Projects & Research
Social Determinants Of Health (SDOH)

The social determinants of health (SDH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.

- Income and social protection
- Education
- Unemployment and job insecurity
- Working life conditions
- Food insecurity
- Housing, basic amenities and the environment
- Early childhood development
- Social inclusion and non-discrimination
- Structural conflict
- Access to affordable health services of decent quality.
CHALLENGES

• Academic
• Social Capital
• Residential Mobility
Academic Success Impacts for Youth

- Utilities
- Babysitting
- Parents Work
- Transportation
- Food Security
- Trafficking
- 4.0 GPA
- 2.0 GPA
SOCIAL CAPITAL

SOURCE: Social Capital - Career Development - IResearchNet
Social Capital Impacts

• Parents Employment
• Social Circle
Residential Mobility

• Home Radius
• Park Space
• Housing
• Amenities
• Physical Environments
Community-Based Participatory Research (CBPR)

CBPR is an approach to health and environmental research meant to increase the value of studies for both researchers and the communities participating in a study.

- What is of value to the researchers?
- What is of value to the community?
- How can researchers & agencies be more intentional about making deposits when designing projects

SOURCE: AHRQ Activities Using Community-Based Participatory Research to Address Health Care Disparities | Agency for Healthcare Research and Quality
CHARRS Citizen Science & Air Monitoring Project
Enriching Deposits for a Fair Start

• Environmental Health Outdoor Classroom
  o Leveling the learning field with fun

• Access to Social Capital

• Exposure to science concepts and fields of study

• Cultural and Other Enriching Experience—Widening the mobility radius

• Shared Knowledge

• Understanding How Physical and Natural Spaces Impact Our Health

• Progress
Collier Heights Environmental Health Outdoor Classroom Beta Testing AQ Trek Handheld Monitor

Pictured are a high school and middle school student, Rajah and Derek, varying abilities monitoring air quality near the neighborhood truck stop.
Collier Heights Environmental Health Outdoor Classroom

Discussion
Youth Stakeholders learned how dirty storm drains were and marked them in the Collier Heights Community in the Fall of 2017 and Winter 2018.

Youth Stakeholders learned how to advocate for their community and to understand policy regarding stormwater. They learned how to identify and report blocked drains in the City of Atlanta. Youth Stakeholders also learned the importance of keeping storm drains clear, such as cleaning out gutters and storm drains in order to prevent flooding and keep the community safe.

Challenges:
- Challenges included identifying and reporting blocked drains, understanding the impact of stormwater on the community, and advocating for change.

Youth Stakeholders worked with Dr. Horacio Kelly, Dr. "Tiffany" They-Vi Thi Nguyen, and Katiya Siso of the GA Department of Public Health with mosquito surveillance.

Youth Stakeholders learned about the habitats, life cycles, and breeding cycles of different species of mosquito common to the region including C. Quinquefasciatus, C. tarsalis, and C. pennsylvanicus. They learned how to identify mosquitoes, the diseases they carry, and the importance of keeping storm drains clear.

Youth Stakeholders participated in monitoring water quality in the Sandy Creek Watershed.

Youth Stakeholders learned how to collect water samples from local water sources and test them for environmental and health concerns. They were taught how to read scientific instruments to understand what they were measuring and how to interpret the results.

Overall, the CHAIRS’s Environmental Health Outdoor Classroom has influenced youth stakeholders to understand how their physical environment affects community health, specifically through water quality and mosquito control. They have also learned how to advocate for change and take action to improve their community.

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When the Research Is Done & Researchers are Gone

What was the deposit made into the Community?

IMAGE SOURCE: Bank Deposits: The Most Important Number on the Balance Sheet - Banking Exchange
DEPOSIT OPPORTUNITIES

• Operational support of community partners
• Create Intergenerational opportunities for youth and elders to work together or interact
• Create opportunities for community members that provide new skill-sets-
Economic
• Provide ethics training for community researchers- Academic/Economic
  o Surveys
  o Testing
• Provide letters of Recommendation
• Utilize social equity to create opportunities
WE HAVE THE ABILITY TO INCREASE ACCESS FOR AFRICAN AMERICAN YOUTH THROUGH OUR PROJECTS AND STILL ACHIEVE OUR GOALS.
Each of us collaborating and choosing to consciously think of ways to make deposits in the communities where we want to work and include those actions in our proposals.
Thank You

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