



BUILDING CAPACITY AND ENGAGING IN ATLANTA'S ENVIRONMENTAL HEALTH COMMUNITY

Community Outreach and Engagement Core (COEC)

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HERCULES scientific theme: Exposome

An “exposome” analogy...

Human body \approx bucket



Each person has a bucket.
Everyone’s bucket is a different size.
When the bucket is full, the person becomes sick.

Bucket is half-full for many living in a resource-limited community.



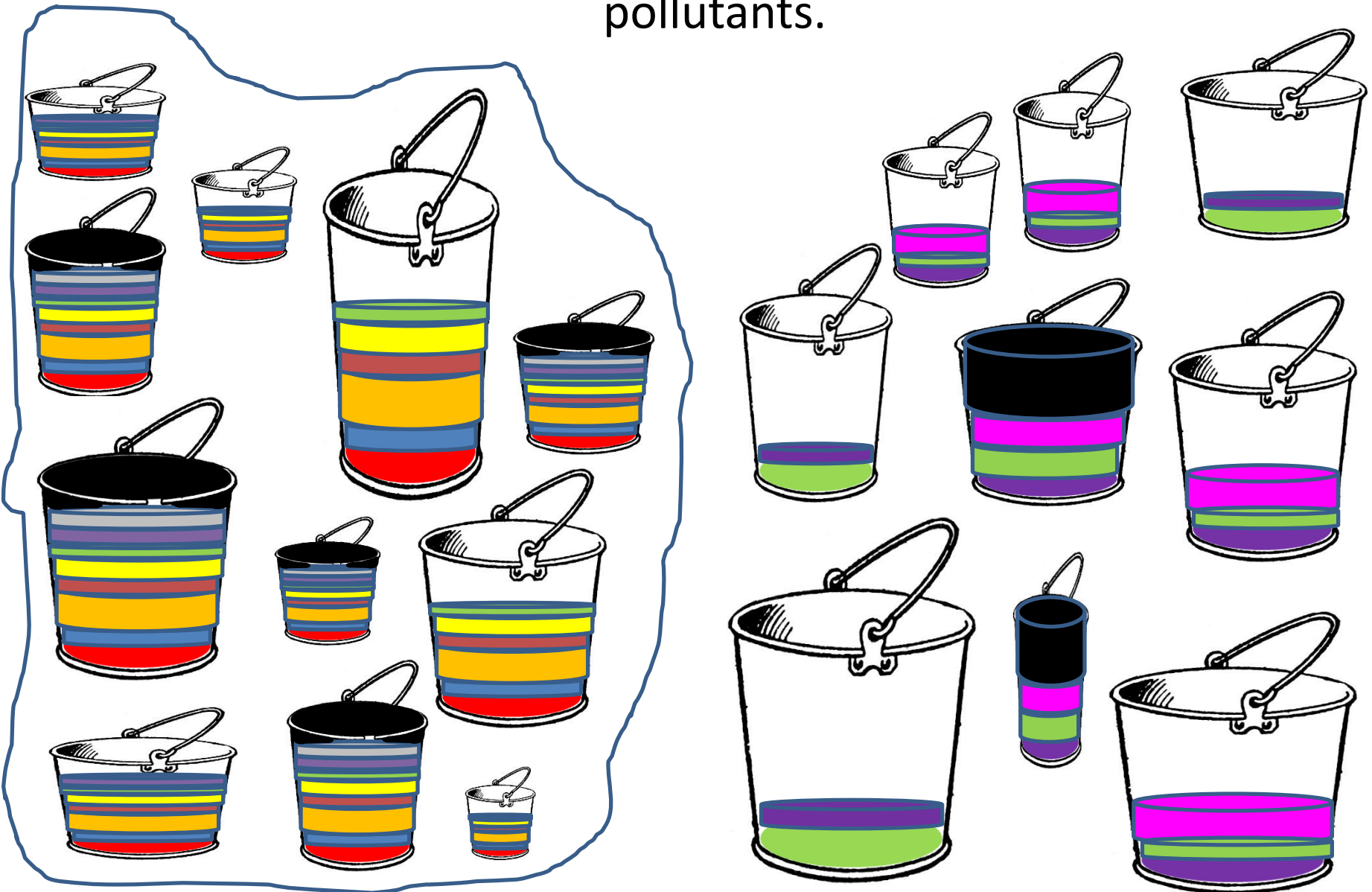
Exposures/Challenges:

- Poverty
- Limited access to nutritious foods
- Limited access to healthcare
- Lack of exercise
- Safety threats / stress
- Air pollution/traffic emissions
- Exposure to pesticides
- Exposure to mold or lead
- Impaired waterways

The Exposome is a scientific approach to measuring the “whole” bucket.



The Exposome can help identify communities that face multiple pollutants and/or are more vulnerable to these pollutants.



Important bucket tidbits...



- The size of a person's bucket can change over time.
- Parental exposures can change the size of future children & grandchildren's buckets.
- Healthy interventions can "remove" stressors from a bucket.

Why community engagement is important to exposome science



- New approach – perfect time to have community input – keeps scientists on track and keeps it relevant to real world experiences!
- Vital community knowledge about exposures can be integrated into science.
- To be translated into action, community guidance is required.

Community Engagement Goals

(Shaped by the community from the beginning)

Short-term

- Develop partnerships with local community and stakeholders
- HERCULES scientists learn local concerns
- Share scientific knowledge with community
- Build capacity:
 - Community
 - Scientists
 - Healthcare providers

Long-term

- Partnerships (including research collaborations) between a community group and HERCULES scientist
 - Incorporate community concerns into science.
- ## Unexpected: city level interest/impact

Keys to success...



- ⦿ Engaged stakeholders
- ⦿ Shared mission
- ⦿ “Safe/neutral space”
- ⦿ Stakeholders are decision-makers
~executive board
 - Decide activities, process, budget priorities

Lynne Young

Engaging Atlanta's environmental health community

Atlanta's Environmental Health Community

- Multiple exposure concerns in Atlanta communities.
- Many community-based organizations that focus on a specific environmental health concern and/or a specific neighborhood/community.
- Wealth of expertise in communities, at universities, and government agencies (from county health departments to the EPA).
 - Existing partnerships b/n many.
 - New partnerships bring strength in environmental health science.

- Atlanta is coalescing around environmental health disparities.
 - Exposome is an all-encompassing theme that provides an umbrella for all environmental health concerns in the community.



Stakeholder Advisory Board



30+ members—community members, non-profit organizations, government agencies, academic partners

The Clarence “Shaheed” DuBois Community Grant Program*

\$2500 for one-year project

Year One Projects:

1. photovoice of street-level environmental health hazards
2. urban farm providing healthy food to Atlanta’s homeless
3. training for immigrant- and refugee-farmers on local growing
4. awareness campaign to educate an immigrant/refugee community about second-hand smoke health risks



Year Two Projects:

5. food garden improvements and training for senior citizens
6. expansion of and training in an urban garden
7. education and awareness in a low-resource, flood-prone community
8. hazardous waste disposal education information for refugee apartment residents

**Community partners helped develop the RFA and review/score the applications*

HERCULES

Community Technical Assistance Program*



Practical support and hands-on mentoring to address local environmental health concerns



**Community partners helped develop the application process and the application.*

Proctor Creek Community Collaborative Health Survey

- High prevalence of observed mold
- High asthma prevalence
- Mold likely due to maintenance issues in addition to flooding



Community Forum: Environment, Health, & Action

- Small-group discussions: experts at each table
- Community collaborative problem solving models
- SC State Rep, Mr. Harold Mitchell, Jr., shared story of overcoming environmental injustice.

Advisory Board members determined these meeting elements



Community Resource Guide



ABOUT COMMUNITY CENTE

Resources for Environmental Health

Food deserts, illegal dumping, and air and water quality are just a few examples of how the environment around you influences your health. Feel free to search our list of resources by topic or by service.

Search by Topic



Green and Healthy Buildings



Drinking Water, Lakes and Streams



Environmental Justice and Law



Common Hazardous Products



Recycling and Safe Disposal



Food Access and Healthy Eating



Indoor and Outdoor Air Quality



Lead and Radon

HERCULES Holiday Party

- Informal interactions between scientists, students, & community – helps build trust



Keys to success

- ① Emphasis on strengthening community capacity
- ① Implementing suggestions from community members
- ① Facilitating participation by community members
- ① Promoting relationships and partnerships between Board, scientists and community.



Kevin Moody

HERCULES community

engagement adds value to public
sector

HERCULES SAB Adds Value to Public Sector

- ◉ Value-Added: Scalable and Transferable!
 - Criteria: Health Equity / Eliminate Disparities
 - Who lives past age 85 and enjoys a great quality of life



HERCULES SAB Adds Value to Public Sector

1. SAB as Public Involvement Model for Better Decisions
 - Inclusive Community-Based Change
 - Civic Actions and Leadership Skills (Vision to Action)
2. Scientist – Community Feedback Loop
 - Fosters Robust Underlying Assumptions
 - Which are Logically Coherent & Transparent, and
 - Improve Transparency: Decision-Making under Uncertainty
 - Bayesian Strategy; Learning Organization; Adaptive Management



emoryhercules.com

Visit our sister site, the [Human Exposome Project](#)



Support for research

HERCULES provides investigators at Emory and Georgia Tech with access to state of the art mass spectrometry for detection of a wide variety of chemicals, such as pesticides, heavy metals, and other persistent organic pollutants. HERCULES also provides access and expertise for high-resolution metabolomics, systems biology, computational biology, and bioinformatics.



Seeding creativity

Each year HERCULES awards pilot projects to investigators at Emory and Georgia Tech to pursue new and innovative ideas. The goal is for the investigators to generate sufficient preliminary data to compete for extramural funding to continue the research.



Commitment to community

HERCULES is committed to learning the environmental health concerns of the greater Atlanta community, facilitating community-academic collaborations, and supporting the community in its capacity to address its environmental health concerns. A stakeholder advisory board meets on a regular basis to foster these discussions and interactions.