

Engaging multiple communities to define the exposome

Presenter: Erin Lebow-Skelley

Background

- The exposome has been conceptualized as all lifetime exposures including toxicants, diet, lifestyle choices, and socioeconomic factors.¹
- Initial applications of the exposome do not reflect the complex lived experiences of many communities.
- To improve future applications of the exposome, we asked Atlanta-area communities to define their exposome using a popular education approach.



Methods

- We used **Group Concept Mapping**,² which provides a systematic method to collect and visualize community members' knowledge in order to foster a shared understanding and organize for action.
- Visual concept maps of the participants' responses were created using nonmetric multidimensional scaling and hierarchical cluster analysis.³
- The **Group Concept Mapping** process:²

Preparation

- Select community
- Identify representative participants
- Develop the focus for brainstorming and rating

Generate Statements

- Brainstorming

Structure Statements

- Sort statements
- Rate statements on importance

Represent Statements

- Create concept maps

Interpret Maps

- Statements and Clusters
- Name clusters
- Point Map
- Cluster & Rating Map

Utilize Maps

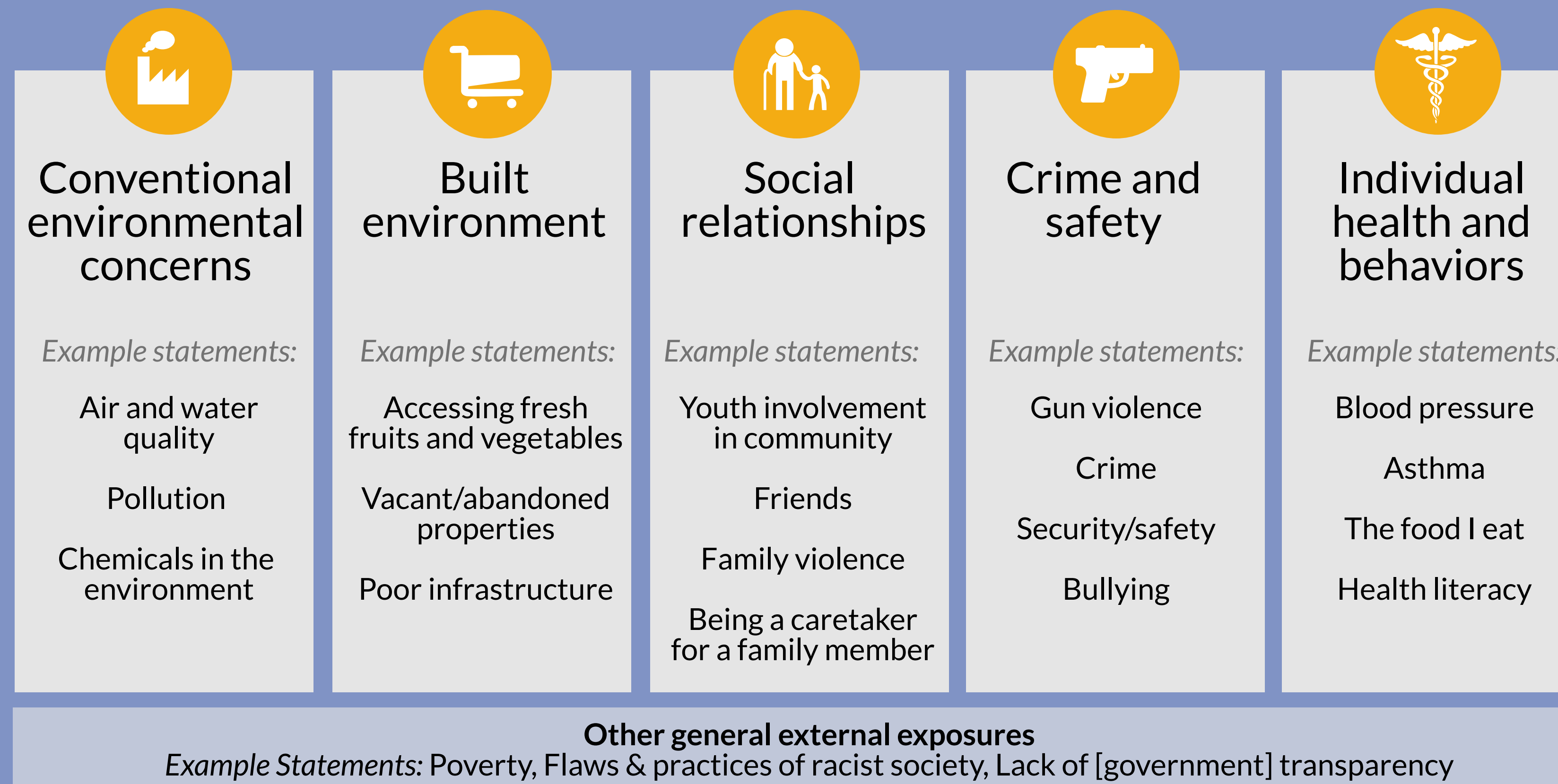
- Planning and Action

For exposome research to truly capture the totality of lifetime exposures and improve human health, community perspectives and, therefore, interdisciplinary collaborations are needed.

We asked communities:

“What in your environment is affecting your health and your community’s health?”

Communities define their exposome holistically, emphasizing the social-ecological influences on individual and community health:



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References:

- Wild, C.P. (2012). <https://doi.org/10.1093/ije/dyr236>
- Trochim, W.M. (1989). [https://doi.org/10.1016/0149-7189\(89\)90016-5](https://doi.org/10.1016/0149-7189(89)90016-5)
- The Concept System® Global MAX™ software (Concept Systems, Inc., Ithaca, USA, Copyright 2004–2020; all rights reserved)

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Results

118 community members from four distinct communities across metro-Atlanta participated in separate workshops to create a concept map that defined their exposome.

The maps depict clusters of statements that participants sorted together and then named. The number of layers in a cluster represents its average importance rating.

Concept maps, communities A-D:

