

Example: The Shaheed DuBois Exposome Roadshow and Community Grant Program

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Background and Purpose

The Clarence “Shaheed” DuBois Exposome Roadshow and Community Grant Program (The Program) supports a community to organize, plan, take, and sustain action around a community-identified environmental health concern, with the goal of improving community health. The Program focuses on the “exposome” defined as the composite of every exposure to which an individual is subjected from conception to death. This provides a holistic approach to understanding the environment’s contribution to health and disease across the lifetime (Miller & Jones, 2014). The HERCULES Exposome Research Center at Emory University (HERCULES) stakeholder advisory board (SAB) guides HERCULES’ community approach. The SAB includes residents, nonprofit organizations, academic partners, and local, state, and federal government agencies.

HERCULES and the SAB collaboratively developed The Program to:

- Increase community awareness of the exposome concept
- Incorporate the community’s knowledge into the academic definition of the exposome
- Provide a structured mechanism to encourage community action
- Enhance community capacity to address local environmental health concerns

Methods

The Program begins with a 2-day Exposome Roadshow Workshop held in the community. The goal is for community members to come together to identify environmental health concerns in their community and begin to mobilize around a priority issue for action. Next, the community receives a small 3-month planning grant to organize around the identified priority issue and develop an action plan. The community implements the action plan using the Action Grant (for 11 months). The Program’s final phase, the Sustainability Grant (11 months), allows the community to develop and carry out a plan to sustain their newly formed community group and efforts. Their plan includes identifying organizational capacity goals, a crucial component of program sustainability. HERCULES provides structured technical assistance during each phase of The Program. Technical assistance includes one-on-one and formal group trainings on topics such as:

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| 1) Leading action-planning discussions | 5) Assisting with organizational structure |
| 2) Developing mission statements | 6) Identifying collaboration opportunities that involve a student, a SAB member, or a HERCULES scientist |
| 3) Identifying roles and responsibilities | |
| 4) Planning and facilitating meetings | |

Results/Outcomes

Six communities have participated or are participating in The Program and have identified and mobilized around a priority issue. All communities participated in our program evaluation, reporting their accomplishments and changes in community capacity. For example, one community group used the Action Grant to develop an action plan detailing the steps needed to address air and water quality related to industrial pollution in their community. Using their Action Grant, they promoted a citizen science odor reporting app to document industrial odors that resulted in more than 700 resident-authored odor reports. They also partnered with HERCULES scientists to measure specific air pollutants using community science. As part of their sustainability planning, they refined their goal to include training residents in community science and identifying different community members to take the lead in various roles to sustain the group. The community's use of community science led to revisions to the city's industrial zoning codes. It also resulted in a meeting among the area's state representative, the mayor, city staff members, and the state's environmental protection division. Following this meeting, the mayor shared the documented community concerns with the company responsible for the odorous emissions. This has initiated dialogue between the company and residents, resulting in a proposed odor mitigation plan. Participating communities have also demonstrated improvements in various dimensions of community capacity, including participation, leadership, skills, networks, sense of community, and community power (Freudenberg et al., 2011). The impact is best described by this reflection on The Program from a community leader: "We change our communities one day at a time just by identifying...and asking... 'do you have environmental hazards?'... This is why we're at the table today."

Challenges/Lessons Learned

The community groups that participate in The Program are typically small volunteer groups. The size and volunteer nature of the groups can present challenges regarding time commitment, project scope, and needed expertise or skill sets. As such, we encourage them to narrow their project scope and identify specific roles and tasks for group members. These small community groups can also face industry opposition, government bureaucracies, and complex technical documentation. The Program alleviates some of these barriers by providing a direct connection to experts within those bureaucracies, supporting community advocacy efforts, and enhancing community power.

Implications for Advancing Health Equity

The Program has the potential to advance health equity by prioritizing environmental justice in communities that face long-standing disinvestment and multiple compounding issues. Once in The Program, we support communities through structured financial and technical assistance to rally around one priority issue. In our experience, strengthening capacity around one issue mobilizes the community to act on additional issues. As discussed by Freudenberg et al. (2011), strengthening community capacity in this way plays a critical role in reducing environmental health inequities.

References

- Freudenberg, N., Pastor, M., & Israel, B. (2011). Strengthening community capacity to participate in making decisions to reduce disproportionate environmental exposures. *American Journal of Public Health*, 101 Suppl 1(Suppl 1), S123–130. <https://doi.org/10.2105/ajph.2011.300265>
- Miller, G. W., & Jones, D. P. (2014). The nature of nurture: Refining the definition of the exposome. *Toxicological Sciences*, 137(1), 1–2. <https://doi.org/10.1093/toxsci/kft251>