

# H. COMMUNITY-BASED PARTICIPATORY RESEARCH OF ENVIRONMENTAL FACTORS ON ARAB AMERICANS IN METROPOLITAN DETROIT: PROGRESS REPORT

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## INTRODUCTION

This report describes implementing a community-based participatory research paradigm in the study of environmental factors on the health of Arab Americans in Metro Detroit, a project funded by the National Institute of Environmental Health Sciences.<sup>1,2</sup> The research partnership responsible for the project drew on the strengths and resources within the community (especially the knowledge and experience of at-risk populations); facilitated collaborative partnerships in all phases of the research; integrated knowledge and action for mutual benefit of all partners. It promoted a co-learning and empowering process essential in addressing social inequalities; involved a cyclical and iterative process; addressed health from both positive and negative environmental perspectives; and disseminated the findings and knowledge gained to all partners. The research activities were driven by a convergence of community need and researcher interest and expertise. Decision-making, compensation, and initiative for the project were shared by the partners. Diversity was a strength of our research partnerships; the group encompassed varying racial and ethnic groups, genders, ages, sexual orientations, geographic affiliations, and differences in formal and informal education. The ability to examine problems and develop solutions from multiple perspectives was the key ingredient of the partnership.

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## PROJECT IMPLEMENTATION

The development and conduct of the study and translation of the results

into a culturally sensitive intervention program entailed the following key elements.

- An effective management system included: 1) a community council, which met regularly and consisted of relevant stakeholders, including representatives of community and neighborhood groups, mosques, schools, cultural organizations, environmental justice organizations, healthcare organizations and agencies, local clinics, and parents or members of the at-risk community, as well as the directors of various programs in ACCESS, a community-based organization with a great deal of experience and a well-developed network in the Arab-American community. The community council played a key role in every phase of the project, from the planning, development, and implementation of all tasks to the interpretation and dissemination of the results; 2) a steering committee, which consisted of the primary investigators, representatives of community-based organizations, academia, and Wayne County Health Department. The steering committee helped structure and direct the work of the community council and hire and train bilingual community environmental health advocates; and 3) an external advisory committee, which met yearly and provided valuable feedback and suggestions on scientific issues to the steering committee.
- Capacity building was achieved by using a series of community workshops on environmental problems that may affect the health of local Arab-American communities. The workshops were attended by community council members and concerned citizens from the community.
- Needs assessment was undertaken with eight initiatives: 1) focus group

meetings (total of seven) to assess knowledge and perceptions within the community; 2) work groups consisting primarily of people drawn from the community to help review relevant literature; compile data from existing data sources; meet with and collect information from other relevant organizations; review, analyze, and interpret this information; and produce recommendations and reports that guided the development of the community action plan. They assisted with assessing perceived community assets and barriers that could play a role in guiding the research and intervention activities; 3) inputs from the community council; 4) detailed survey (assessments) of 617 households in four predominantly Arab-American neighborhoods in Metropolitan Detroit (neighborhoods in Dearborn, Detroit, Hamtramck, and Oak Park); 5) a survey of key informants and community leaders asking them to suggest and rank the principal environmental health problems in the community; 6) a community fair at a local school; 7) call-in shows at Arab radio and television stations; and 8) newsletters with addresses for return of comments.

- A community action plan was developed that included culturally appropriate study protocols that were approved by all stakeholders. The plan reflected the priority environmental health concerns that were identified by the community and included air pollution, respiratory illness, truck traffic and truck exhaust, and a need for environmental education in general.

- A household educational intervention was designed to: 1) increase knowledge of family members about environmental health concerns identified as pri-

orities, such as outdoor air pollution and asthma; 2) inform residents about actions they could take to minimize the effects of risks identified in their homes during the survey; 3) improve the health status of participants with respect to their ability to manage common environmental health hazards of concern; 4) maximize participants' use of available medical, environmental, and other resources.

- Bilingual physicians used as community outreach workers instilled confidence and encouraged community members to participate in the study.

- A community-level education action plan was tailored to the cultural, literacy, and language needs of the low-income Arab-American population so as to: 1) increase awareness and knowledge about priority environmental health concerns/risk factors and environmental justice issues; 2) increase capacity of residents to recognize and work collectively to reduce the environmental health hazards; 3) increase knowledge about available resources (eg, environmental justice organizations, health programs, medical services, regulatory and public health agencies, transportation, etc) that improve the community's ability to address environmental concerns and improve the community's environmental health status; 4) increase understanding of regulations and policies related to community air pollution.

- Process and impact evaluation of the project was performed by using interviews of key individuals to ascertain factors that facilitated or hindered the project implementation process and pre- and post-study tests to assess the success of both the household and neighborhood components of the interventions.

## IMPACT ON PUBLIC HEALTH ISSUES

The project educated the participating households on how to reduce the environmental risk factors identified in their homes. Through the family-centered process, they have become aware of the connections between the risk factors and some of the health problems they were experiencing. They learned about asthma triggers such as environmental tobacco smoke, cockroaches and dust mites, household chemicals, mold and dust, and remedial actions to take. The community-level educational intervention increased the awareness and knowledge-base of environmental health risk factors and available resources and services in the community; increased the capacity and desire to work collectively to reduce environmental health hazards through environmental justice action and advocacy; and contributed to debate on policy options needed to resolve some of the pressing environmental problems in the community.

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