



Healthy Environments Partnership 2004-2005 Annual Report

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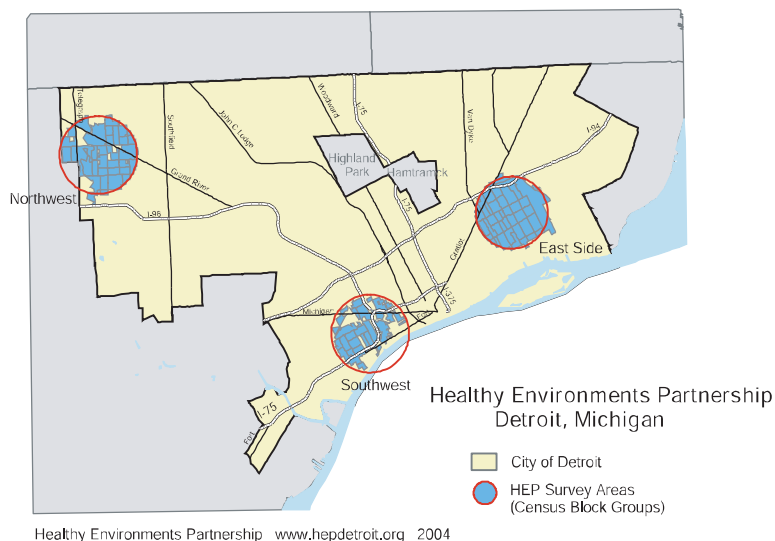
Healthy Environments Partnership (HEP)

The HEP is community-based participatory research project of the Detroit Community-Academic Urban Research Center (URC) and a partnership between various Detroit-based and Detroit area organizations. We are working together to learn more about how the social environment and the physical environment in three Detroit neighborhoods-eastside, northwest and southwest- are linked to risk for heart disease. (See sidebar at right for additional information about the underlined topics.)

Detroit as a Study Area

Detroit residents have faced considerable challenges in recent decades including declining population and tax base, divestment from companies and the associated loss of economic resources and community infrastructure. There is increasing interest in understanding how such social inequalities contribute to differences in the social and physical environments in which people live, and ultimately, affect heart disease risk. Both African American and White residents of Detroit experience a greater risk of death at younger ages when compared with national averages, although there are variations in these risks in different areas of the city. Until recently, relatively little information has been systematically collected on the city's Hispanic community, primarily comprised of Mexican Americans.

The information collected through HEP will help us better understand how these environments affect risk for heart disease and will assist HEP members, local community organizations and individual residents to work more effectively together to improve heart health for Detroit residents.



Community-Based Participatory Research (CBPR):

Involves all Partners actively in each step of the research process, including decisions about study design, study methods, how study findings are shared with community residents and others, and actions taken on the basis of those findings.

Social Environment:

Refers to everyday interactions between people and organizations in a community (i.e., citizen/police relations, block clubs, available services and organizations).

Physical Environment:

Refers to the environment in which people live (i.e., the quality of the air and water, and access to food, parks and playgrounds).

Social Inequalities:

Refers to unequal conditions, for example, discrimination or differences in the quality of education, income, or housing quality. These inequalities contribute to inequalities in health, including heart disease.

For more information about The Healthy Environments Partnership contact Sheryl Weir, Project Manager at: 734-615-2695 or visit our website at: www.hepdetroit.org

Southwest Detroit Environmental Vision (SDEV)



Alison Benjamin

Alison Benjamin, Contaminated Sites Program Manager for Southwest Detroit Environmental Vision (SDEV), joined the Healthy Environments Partnership (HEP) Steering Committee in 2001.

SDEV works with local developers and other agencies to clean and redevelop contaminated land in southwest Detroit. Founded in 1992, SDEV formed as a community response to economic and environmental conditions resulting from the pullout of industry in Detroit in the 1970s and 1980s. Faced with escalating environmental issues such as contaminated land, abandoned buildings and factories, and air pollution, Benjamin notes that "residents and agencies decided to partner collaboratively to see what could be done to seek common ground on environmental issues."

SDEV's focus on air-quality issues and its commitment to improving Detroit economically and environmentally are consistent with HEP's focus. As a community agency, SDEV is able to bring insight on the issues facing residents of southwest Detroit. And as Benjamin notes, for SDEV "the chance to partner with a major research institution [the University of Michigan] that was monitoring air quality and relating it to public health problems seemed ideal. We saw it as a way to gain access to air quality research data and to learn more about particulate matter (PM) from diesel exhaust and how it relates to health."

Benjamin hopes that results from HEP's analysis of airborne particulate matter will illuminate the causal pathways between air pollution and the public health problems -such as asthma and cardiovascular disease - that southwest Detroit residents face. While SDEV tracks national statistics on air pollution, local data is difficult to gather. "We don't have a good way to show our policy makers the connection between air quality and health." SDEV is also interested in examining strategies that can mitigate the negative health effects of air pollution: "Any information we can get and use to help people would be useful. We know we bear a high burden of pollution - the question is now what can we do to help."

Benjamin hopes that HEP data will also be able to influence urban land planning and policy decision making in the future. "We are under a great deal of pressure from land use and industry who want to relocate in this area - freeways, another international bridge crossing, another inter-modal truck facility- and we feel that the data from the HEP Study will allow us to better relate to the consultants on the environmental impact studies and to educate the public. There is a lot of vacant land in this area that has been traditionally zoned as industrial. Nobody anticipates that [this] amount of land will be used for industry in Detroit so we have an opportunity to use what we have learned from some of the air quality information to make better land use decisions in the next 30 years."

Air pollution, although a serious problem in southwest Detroit, is difficult to address. The magnitude of the problem can seem overwhelming, notes Benjamin. "There has to be investment in education to show the connection between health effects and air quality." Effects of air-pollution such as noxious odors, ash, and debris impact the quality of life of residents as well health status, notes Benjamin. "In a society that has moved beyond the smokestack mentality except in certain geographic areas, [air-quality] isn't big on anyone's list anymore, but it relates very highly to the quality of life of people in this neighborhood." HEP's Community Outreach and Education Program (COEP) activities, will share information with residents of Detroit about the serious health effects of air-pollution and contribute to identifying ways in which community members and public health can work together to address these challenges.



Paul Max

Paul Max, Associate Industrial Hygienist for the Detroit Department of Health and Wellness Promotion (DHWP), joined the Healthy Environments Partnership (HEP) Steering Committee in 2001. The Division of Community and Industrial Hygiene, where Max has worked for the past 17 years, oversees industrial ventilation and monitors indoor air-quality in community and industrial settings. As an Industrial Hygienist, Max responds to complaints of indoor air pollution and performs licensure inspections to ensure that buildings are safe and appropriate for their intended uses.

While Max works specifically to improve indoor air-quality, he is interested in all forms of air pollution that pose a threat to the health of Detroit residents. According to Max, air-pollution harms human health by causing "respiratory stress, especially in those predisposed to asthma. Air pollution makes your heart work harder, your lungs work harder. On days when PM (particulate matter) levels are high you have people just not feeling well." In fact, there is substantial evidence that high levels of airborne particulate matter contribute to increases in hospitalizations for cardiac events, and to deaths from heart attacks, particularly among the elderly and young children.

Max first became interested in HEP when he was approached by the General Manager of the Family and Community Health Division (DHWP), William Ridella. Ridella "thought HEP would be a good fit with my skills and interests" remembers Max. "I was familiar with the issue of PM and ozone as they relate to respiratory illnesses so I was able to contribute technical knowledge" to the project. Like HEP, Max and the DHWP are concerned with land use

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Neighborhood Observational Checklist (NOC)



One of the main goals of the Healthy Environments Partnership (HEP) is to learn how the neighborhoods where people live affect their risk of heart disease. Neighborhoods may affect people's health in positive or negative ways. Characteristics of the neighborhoods in which people live may affect the kinds and degree of stressors they experience; for example, poor housing conditions or the level of crime in the area. Similarly, the conditions and physical characteristics of neighborhoods can influence how individuals interact and develop relationships with their neighbors, the availability of alcohol or tobacco products, nutritious foods, or opportunities for exercise or physical activity. Finally, neighborhoods can vary in the types and levels of environmental hazards, such as air pollutants. Each of these aspects of neighborhood - stressful conditions, relationships with neighbors, availability of healthful resources (nutritious foods, spaces for recreational activities), and exposure to environmental pollutants - has important implications for residents' risk of heart disease.

In the summer of 2001 the HEP convened a series of focus groups with residents of east-side, northwest, and southwest Detroit to learn more about characteristics of those neighborhoods that might affect heart disease. Residents were asked about aspects of their lives, including their neighborhoods, that they experienced as stressful. Similarly, participants were invited to talk about both personal and neighborhood resources that were available to them that might help reduce the effects of stress. Members of the HEP Steering Committee then discussed what Detroit residents told us and brainstormed about other neighborhood characteristics. They discussed how these characteristics might positively or negatively affect people's stress levels, relationships, behaviors and risks of heart disease. The results of this process were incorporated into multiple aspects of the HEP study. Among these is a Neighborhood Observational Checklist (NOC) that includes 140 neighborhood characteristics that might be important for health. Examples of neighborhood characteristics included on the NOC are the types and condition of housing; churches; abandoned cars; community centers; vacant lots; neighborhood watch signs, security fences and devices on homes and businesses; murals; tobacco, alcohol, and fast food advertisements; no dumping signs; amount of traffic; amount of trees; amount of litter; parks and playgrounds; condition of sidewalks and roads; and the proportion of homes with decorations.

The HEP hired and trained "observers" to systematically observe and record information using the NOC. All of the observers either lived or worked in Detroit. The training took place over seven weeks in the spring and early summer of 2003. It was very important for the observers to look for the same features of neighborhoods and to rate neighborhood characteristics in the same

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*Paul Max
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decisions that would impact city air quality such as the proposed Detroit inter-modal freight terminal, because of their important implications for health.

Max hopes results from HEP will garner community and industry interest in reducing air-pollution. "HEP findings could provide an impetus for change," notes Max. For example "If we find that PM is related to poor health outcomes that may spur development of more efficient exhaust systems or different fuel technology."

Max has enjoyed his work with HEP and has appreciated the opportunity to meet community members and professionals from different disciplines. In addition to serving on the HEP Steering Committee, Max is involved in Community Action Against Asthma (CAAA), DHWP monitoring of West Nile Virus, Emergency Management planning for the City of Detroit, and a program to distribute radon gas monitors.

NOC Continued from Page 3

handheld computers. Community members who participated in the training offered many valuable insights into the measurement of neighborhood characteristics and the definitions used were improved considerably based on their input. Eleven people successfully completed the training and were certified to collect data using the NOC. In midsummer to early fall of 2003, these eleven observers recorded information on about 550 city blocks across eastside, northwest, and southwest Detroit using the Neighborhood Observational Checklist.

The HEP is now in the process of looking at the associations between neighborhood characteristics and residents' levels of stress, social relationships, health-related behaviors, and risk of heart disease. For this effort, we are combining the information obtained through the NOC with information provided by a random sample of 919 residents of eastside, northwest, and southwest Detroit. These Detroit residents told us about their behaviors and health (e.g., how much they exercise and smoke, what they eat, their levels of stress and depression, their social relationships, whether they have high blood pressure or heart disease). They also had their blood pressure, height, and weight checked and some gave blood samples so that other indicators of heart health could be measured (e.g., cholesterol levels).

These on-going analyses will help HEP identify aspects of participating Detroit neighborhoods that positively or negatively affect residents' risk of heart disease. This information will then be used to develop strategies, including working with policy-makers to build on existing neighborhood resources to reduce residents' risk of heart disease. Ultimately, we hope that our research will be useful for persons and groups who develop programs and policies to improve the health of residents of eastside, northwest, and southwest Detroit.

HEP Data Collection Activities

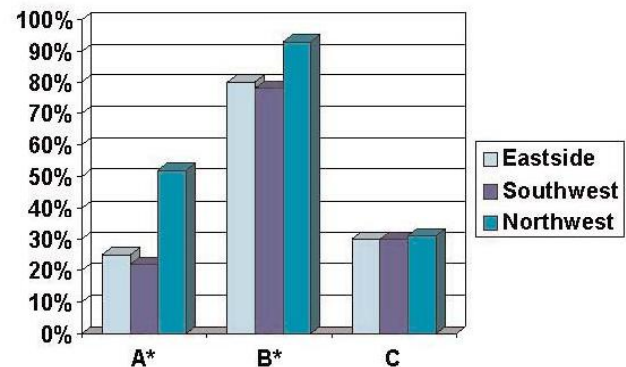
HEP is one of the first studies to comprehensively look at how the social and physical environments in which people live contribute to racial differences in risk for heart disease. HEP data collection activities include: A Community and Nutrition Survey with 919 Detroit residents; Air quality monitoring in the three study areas for three years; A biomarker component in which 367 HEP survey respondents participated; and The Neighborhood Observational Checklist.

Through the Community Outreach and Education Program (COEP) HEP shares study findings with community members, gets community feedback related to study findings, and works with community partners to improve heart health among Detroit residents.

COEP activities include:

- Nutrition Feedback Report sent to all HEP survey respondents.
- Biomarker Feedback Report sent to all HEP biomarker component participants.
- HEP website launched, September 2003 (www.hepdetroit.org).
- Oral and poster presentations at the American Public Health Association 2003 and 2004 Annual Meetings.
- Annual Reports (2003 and 2004) completed.
- Steering Committee Resource Manual developed, August 2004.
- Co-sponsored the 2nd Annual Women's Health Conference, October 2004.
- Dissemination of preliminary findings to HEP Partner Organizations.
- Community forums on heart disease and the environment.

Percent residences in good or excellent condition, with decorations, or with grounds in fair or good condition, Eastside, Southwest, and Northwest Detroit



- A: Percent residences in good or excellent condition (p<.000)
- B: Percent residential grounds in fair or good condition (p<.001)
- C: Percent residences with decorations (n.s.)