



Healthy Environments Partnership 2002-03 Annual Report

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What is the Healthy Environments Partnership (HEP)?

The HEP is a partnership between various Detroit-based and Detroit area organizations (*see sidebar at left*). 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.*)

HEP is a project of the Detroit Community-Academic Urban Research Center (URC). Like all projects of the URC, HEP uses a community-based participatory research process to guide our work. The Healthy Environments Partnership has adopted a set of principles that guide the working relationships among members of the project to ensure equitable participation and influence in all aspects of the study and dissemination of results to community members, community organizations, decision makers and public health practice and research audiences.

How Does the Environment Shape Risk for Heart Disease?

Much of the information about heart disease risk has focused on individual factors, including family health history and individual health behavior. While this information is very useful, individual factors do not fully explain differences in rates of heart disease among certain groups of people. For example, groups with less access to certain resources (e.g. educational, economic, healthy foods) experience higher risk for heart disease. Similarly, African Americans, as a group, experience higher risk of heart disease than do White Americans, and heart disease for both White and Black Americans is higher than those reported for Mexican Americans.

There is increasing interest in understanding how social inequalities contribute to differences in the social and physical environments in which people live, and ultimately, affect heart disease risk. We expect the HEP findings will provide additional insights about the link between social and physical environments and risk for heart disease and will provide information that can be used to improve heart health in Detroit.



- Social environment describes 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, food access, and access to parks and playgrounds).
- Community-based Participatory Research (CBPR) Processes involve all Partners actively in each step of the research process, including decisions about study design, study methods, how the study findings are shared with community residents and others, and actions taken on the basis of those findings.
- Social Inequalities describes 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.

HEP Northwest Area Population and Health Statistics (2000)*

- 77% of the residents are Black and 19% are White.
- About 1% are of Hispanic ethnicity.
- The population in the HEP northwest area declined by 27% from 1990 to 2000.
- The median household income was \$33,228.
- 41% of the housing was built prior to 1950.
- 6% of the residents is 65 years of age or older.
- Age-adjusted heart disease death rate per 100,000 was 241.3 for CRS 8 compared to 258.2 for the US and 344.4 for the city of Detroit.



Eastside Detroit Population and Health Statistics (2000)*

- 97% of the residents are Black and 2% are White.
- About .5% are of Hispanic ethnicity.
- The population in the HEP east area declined by 31% from 1990 to 2000.
- The median household income was \$20,811.
- 76% of the housing was built prior to 1950.
- 15% of the residents is 65 years of age or older.
- Age-adjusted heart disease death rate per 100,000 was 538.0 for CRS 3 compared to 258.2 for the US and



Southwest Detroit Population and Health Statistics (2000)*

- 16% of the residents are Black/non-Hispanic.
- 21% of the residents are White/non-Hispanic.
- 60% are of Hispanic ethnicity.
- The population in the HEP east area declined by 16% from 1990 to 2000.
- The median household income was \$24,956.
- 75% of the housing was built prior to 1950.
- 8% of the residents is 65 years of age or older.
- Heart disease death rate per 100,000 was 332.8 for CRS 5 compared to 258.2 for the US and 344.4 for the



Why Detroit?

Detroit is a city with an incredibly rich history that includes major contributions to the Civil Rights Movement, labor organizing, manufacturing and musical traditions. In recent decades, the city and its residents have faced considerable challenges, including declining population and tax base, relocation of major employers out of the city, and the associated loss of economic resources and community infrastructure.

Though Detroit residents have faced all of these challenges with strength, determination and resilience, they have also exerted a toll on their health and well being.

In recent decades, both African American and White residents of Detroit have experienced a greater risk of death at younger ages when compared with national averages. 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 social and physical environments affect risk for heart disease. It will also help us learn about social and physical factors that present a greater risk for heart disease, and if those factors affect groups differently. This will help members of the HEP, local community organizations and individual residents develop better programs and activities to improve heart health for Detroit residents.

*Data Sources—US 2000 Census, Detroit Health Department 2000 Data Book and National Vital Statistics Report Vol. 50 9/16/2002..

**City of Detroit Health Data is reported by CRS (Community Reinvestment Strategy) Area. The HEP northwest area is located within CRS 8, the HEP east area is located within CRS3 and the HEP southwest area is located mostly within CRS5. Heart disease statistics reported here are for the entire CRS area.



Airborne Particulate Matter (PM) is a form of air pollution, specifically small particles in the air. PM is measured in two sizes: PM 2.5 and PM 10. In urban areas PM 2.5 generally comes from combustion sources such as smokestacks and emissions from cars and trucks. PM 10 is released by these same sources as well as from natural sources such as wind blown dust.

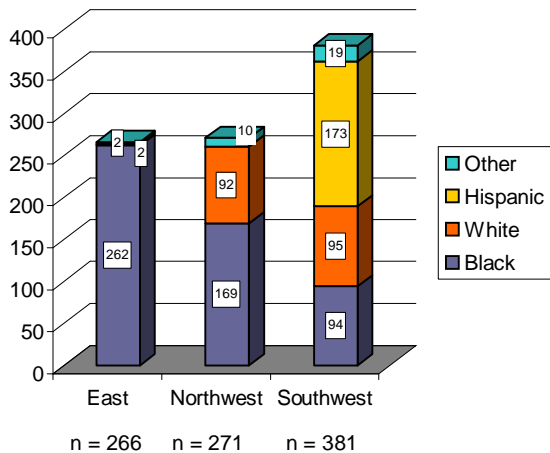
What is HEP Doing to Understand Relationships Between the Environment and Disparities in Heart Disease?

The Healthy Environments Partnership is among the first studies to comprehensively look at the influence of socioeconomic status on the social and physical environments in which people live, and how those environments might contribute to racial differences in risk for heart disease. A number of activities will be conducted as part of the project.

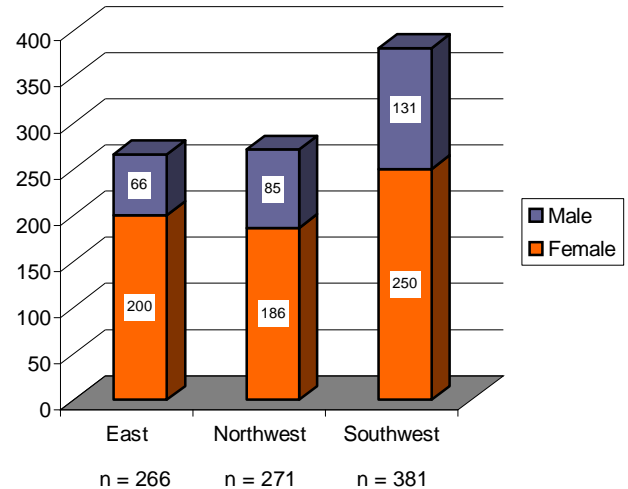
- *Community and Nutrition Survey* - 918 Detroit residents were interviewed between April 2002 and March 2003. The survey was developed by the HEP Steering Committee using a CBPR process. Residents were asked about conditions related to their environment, their health-related behaviors (dietary intake, physical activity) and personal health. Each respondent received a feedback report based on their reported food and nutrition intake, indicating their risk and protective factors for heart health and suggestions for improvement.
- *Air quality monitoring* - HEP measured differences in a form of air pollution, airborne particulate matter (PM), in the three Detroit neighborhoods that are part of the study. Other studies have shown that exposure to PM at levels currently reported in most urban areas can cause negative health effects, such as heart attacks, asthma, pneumonia, and other lung diseases. Monitors were located in each of the three Detroit neighborhoods for three years to record the level and types of PM. This study will examine the relationship of levels and type of airborne particulate matter to the heart health of residents.
- *Biomarker* - A total of 367 of the Detroit residents who participated in the HEP survey also participated in the biomarker component of the study. This involved giving samples of blood and saliva, which will allow HEP to look at links between self-reported stressors and physiological markers such as cortisol, high and low density cholesterol levels (HDL and LDL), triglycerides and homocysteine. Community members who participated in this part of the study received a feedback form with the results from their blood lipid analysis, along with recommendations for ways to improve their heart health based on American Heart Association and National Heart, Blood and Lung Institute guidelines.
- *Neighborhood Observation Checklist (NOC)* - In the final component of the study, community members were trained to use a NOC to record observations about physical and social characteristics that may influence heart health in three Detroit neighborhoods. Examples of observations include neighborhood characteristics that may influence behaviors that affect health (advertisements for tobacco or alcohol products), contribute to stress (condition of housing, abandoned cars, amount of traffic), or that may be protective of health (parks that provide spaces for recreational activities).

HEP Survey Respondents by Study Area

Number of Survey Respondents by Area and Race/Ethnicity



Number of Survey Respondents by Area and Gender



How will the findings be shared with the community?

A major component of the Healthy Environments Partnership is our Community Outreach and Education Program (COEP). The overall goal of the COEP is to disseminate and translate knowledge gained from the study to a broad audience in order to inform new and established efforts to improve heart health in Detroit.

COEP Objectives:

- Share results of the study with community groups and individual members.
- Get feedback from the community related to the study findings.
- Work with Partners to develop new, or enhance existing, efforts that improve heart health among Detroit residents.

Planned COEP Activities:

- Provide information and training to Partners and community members on how environment, social factors, and behavior shape heart health.
- Host community forums to present and get feedback on study findings.
- Work with community organizations to improve heart health for Detroit residents.
- Establish a website to provide information about the Partnership, HEP activities, and how social and physical environments impact heart health.
- Produce Annual Reports on HEP progress and activities.

COEP Accomplishments To Date:

- Completion of the 2002-03 HEP Annual Report.
- HEP website launch, September 2003.
- HEP Steering Committee completed training related to information dissemination.
- HEP Workshop entitled, "The Healthy Environments Partnership: A Community-Based Approach to Understanding and Reducing Heart Disease in Detroit" at the American Public Health Association Annual Meeting, November 2003.