Healthy Homes Grantees in Region I, New England

Name of Grantee: President & Fellow of Harvard College
Name of Project: Urban and Rural Household Pesticide Exposures in Minority Communities
Amount Awarded: $ 721,066
Year of Grant: 2005
Contact Info:
Project Director, John D. Spengler, 617-384-8810, spengler@hsph.harvard.edu
Professor of Environmental Health and Human Habitation, Akira Yamaguchi

Project Partners: Florida Agricultural and Mechanical University (Tallahassee, FL)
Center for Healthy Options and Innovative Community Empowerment (CHOICE)
Southwest Research Institute

Summary of Project Activities:

The goal of the project is to assess household exposures to pesticides and other common chemicals in two predominantly African-American and economically disadvantaged communities, one urban (Roxbury, Massachusetts) and one rural (Gadsden County, Florida). From each of these communities, 100 homes will be sampled, drawn from a cohort of adults being followed in a separate collaborative community-based research study between Florida A & M University, Gadsden County, Florida, Harvard School of Public Health (HSPH), and Roxbury, Massachusetts funded by the National Center on Minority Health and Health Disparities. This collaborative, the Center for Healthy Options and Innovative Community Empowerment (CHOICE) is focused on understanding the interrelationship between several risk factors for hypertension, including lead exposure, racial discrimination and job strain. Following collection of dust samples from study homes, these samples will be analyzed for a suite of pesticide residues that are in widespread residential use, as well as those that may have occupational exposures, particularly from agricultural applications, in our cohort. A nested study (n=50 homes in each community) will analyze these samples for a broader list of compounds that may represent significant health risks from indoor sources and reservoirs, including phthalates, polybrominated diphenyl ethers (PBDEs), heavy metals, polycyclic aromatic hydrocarbon (PAHs) and polychlorinated biphenyls (PCBs). Using these data, we will estimate the relative contributions of residential use, outdoor transport and occupational sources to these household exposures. We will also communicate sampling results to study participants and public health and policy officials and provide educational information and public policy recommendations on practical risk reduction measures where appropriate.

Product Outcomes/Outputs:

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