

Asthma Center Reducing Disparities:

Focusing on Community-Based Research

The **Asthma Center on Community Environment and Social Stress (ACCESS)**, is a partnership between the Center for Community Health Education, Research and Service, Inc. (CCHERS), the Channing Laboratory at Brigham and Women's Hospital and the Harvard School of Public Health.

It was funded in October 2002 by the National Heart Lung and Blood Institute (NHLBI) of the National Institutes of Health (NIH) as one of five national centers for reducing racial, ethnic, and socioeconomic disparities in asthma. The following data from the Boston Public Health Commission verify the prevalence and severity of asthma among Boston's inner city children.

- Boston has double the rate of the statewide average of asthma hospitalizations for children under age 5.
- The number of asthma hospitalizations among children under age 5 in Boston increased from 261 in 1998 to 283 in 2002 while the rates among this population also increased from 7.2 in 1998 to 8.9 in 2002.
- In the Roxbury neighborhood of Boston, the average annual asthma hospitalization rate among children under age 5 is five times the statewide average.
- The number of hospitalizations among Black and Latino children under age 5 in the city of Boston in 2002 was more than triple and double respectively, the number of white children (White 34; Black 123; Latino 86; and Asian 13).

The research and related training activities of the Center focus on gaining a greater understanding of why communities of few economic and social resources and communities of color are more severely affected by asthma than other populations and determining ways to improve asthma care by translating research into primary care practice.

CCHERS is conducting community-based research that captures the stories and experiences of children, families and communities coping with asthma. As part of a community needs assessment, researchers at CCHERS have conducted pilot focus groups to examine differences in perceptions about asthma etiology, health disparities, and effective treatment for asthma, while at the same time assessing the utility of the specific questions posed in the focus groups.

Focus groups provide the respondents with the opportunity to articulate opinions and concerns difficult to capture in a more structured survey. Two focus

groups, one with caregivers of children with asthma, and one with caregivers of children without asthma took place in the spring. The first focus group with nine caregivers of non-asthmatic children was held in a community center in Jamaica Plain and the second focus group comprised of eleven caregivers of children with asthma was held in a housing development in Roxbury. In the fall, researchers at CCHERS will conduct two additional focus groups comprised of health care providers from its partner community health centers, and then embark on an analysis of the data from all the focus groups. In the U.S., the highest rates of asthma are among children under 18 years of age. Asthma disproportionately affects minority children and is especially prevalent in low-income populations in urban communities.

To further contribute to our scientific understanding of health disparities in asthma, the Harvard Team of researchers is exploring the overlap between biological determinants and psychosocial factors (i.e., life stress) in understanding the rising asthma burden in urban environments. Recruitment efforts target low income families served by several community health centers in the Boston area. More specifically, a cohort of pregnant women is being enrolled and then followed over several years. Researchers are measuring the incidence of wheeze and asthma, along with assessments of immune response. In addition to the impact of family and caregiver stress (measured at both individual and community levels), Harvard researchers are also measuring physical characteristics of the environment including allergens and diesel-related pollution, and their role in the distribution of asthma in Boston communities. Following data collection and analysis, the final stage of the project will include preparation of a written report to be submitted to the NHLBI/NIH, and presentations of results by both teams of researchers in different venues including professional and scientific conferences, newsletters, and community forums.

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Executive Director's Corner

This issue of the CCHERS Community Newsletter is dedicated to the work of CCHERS as a partner in the Asthma Center on Community Environment and Social Stress (ACCESS). The focus has been on promoting a model of community-based participatory research that applies the requisite scientific rigor of NIH standards to qualitative research methods and captures and insures the inclusion of the social environment, cultural influences, and economic circumstances which are the true determinants of disparities in asthma among urban children of color.

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Asthma is just one of the many diseases exhibiting significant disparities in morbidity and mortality among minority populations based on rates of incidence, severity, prevalence, etc. However, the stories are not reflected in the numbers. The qualitative research work of CCHERS is critical to gaining a full understanding of this health problem among the children of Boston.

While some research has found correlations between socioeconomic inequalities and persistent racial and ethnic disparities, the current focus on the elimination of disparities in health and health care among those groups with the highest disparities lacks the scientific knowledge base for connecting how racial, ethnic and socioeconomic factors impact health. Further research is needed on the relationship between racial/ethnic background and the risk of chronic disease.

In February 2002, The Boston Globe reported Boston as the hub of medical research and the leading city for total amount of funding from the National Institutes of Health, in excess of \$1 billion. Locally, the paucity of people of color involved in clinical and even health services research, the traditional academic research paradigm, and the lack of value attributed to applied research in the academy, begs the relevance of the research to community based primary care practice and making a difference in the health and health care of patients served by Boston's community health centers.

The CCHERS consortium of academic institutions, a teaching hospital, the public health department, and a network of fifteen community health centers represents a successful model of partnership with thirteen years of accomplishments with collaborative community-based health professions education, research and service.

ACCESS represents a unique research partnership in the way it is structured and funded, as two separate grants, one given to the research intensive institution (Channing Laboratory) and another to the minority serving institution (CCHERS) with an administrative and research executive committee representative of both institutions to oversee the work of the Center. The challenge has been in developing a true academic-community partnership, absent an existing history or relationship, or the time to build one, between two culturally distinct institutions. Despite the challenges however, the need for these types of research partnerships is essential if we are to eliminate disparities in the health and health care of the residents of our city and our country.

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Boston's Healthy Public Housing Initiative

The Healthy Public Housing Initiative (HPHI) is a community-based participatory research project that is a collaboration led by public health faculty at Harvard, Boston and Tufts universities, with the Boston Housing Authority, the Boston Public Health Commission, and community partners, the Committee for Boston Public Housing, and the West Broadway and Franklin Hill tenant task forces.

The goal of HPHI is to conduct research in such a way that it has a short-term impact on housing conditions and a long-term impact on housing policy at the local, state and national level. In order to do this, it was critical to have the active participation of both the local housing authority and the residents of the developments. They recruited, trained and hired residents, who called themselves Community Health Advocates (CHAs), to be key field staff for the project. The CHAs conducted surveys, helped collect environmental samples and prepare families for the pest management. They also participated in project discussions about data analysis and policy implications.

The core data collection consisted of a series of focus groups, a survey of 238 households in the Franklin Hill and West Broadway housing developments and a longitudinal intervention study of integrated pest management with families of 60 children who have asthma. The focus groups helped confirm that among the residents' top concerns were cockroach infestation, water leaks and mold and malfunctioning heating systems.

Analysis of the survey data has, thus far, suggested that renovations to housing developments alleviate some of the poor housing conditions and that apartment moisture and mold are associated with increased health symptoms among residents. Collection of the data from the intervention study was completed in February 2004 and analysis by the academic researchers has begun. Preliminarily, it appears that the pest management effort reduced levels of cockroaches, but whether the impact lasted and whether it benefited the health of asthmatic children in the homes remains to be determined.

Even as findings from the study have begun to emerge, the project team has undertaken a substantial effort to begin translating the lessons learned into policy. The area that has advanced the farthest is the development of a job training strategy for residents of public housing to become "integrated pest management assistants", in other words, to be hired to help implement pest control. The partnership is currently developing a pilot program that would train and employ 12-15 residents up to two times per year.

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Headmaster of HCa Named Ambassador In Education

Health Careers Academy (HCa) Headmaster, Albert D. Holland was the recipient of the prestigious MetLife Ambassadors in Education Award for 2004. The award recognizes principals and headmasters nationally for their work in connecting their school with the community. "Principals are key to establishing a culture of caring and community involvement in their schools," said Sibyl Jacobson, MetLife Foundation president and CEO. "Their leadership in reaching out to their students' neighborhoods, sets an important example for students, teachers and staff."

Mr. Holland saw a need to reach out to the community as soon as he took the HCa Headmaster's position in 2001. "We try to emphasize community service," said Holland, who since arriving at HCa has implemented an Annual Health Fair, organized and coordinated by HCa students, in which over 1,000 Boston residents receive free health screenings and informational materials. "We also place students in internships through CCHERS in local community health centers, hospitals, and other health related areas where they also gain valuable work experience."

The national award recognizes fifteen public school principals in the middle and higher grades "who are making extraordinary efforts to strengthen their schools and communities," according to MetLife spokesperson Veronica Sepsey. Each of the winning principals will receive a \$5,000 grant for his or her school to continue community work and relationship-building projects.

Contact: Albert Holland, Headmaster, Health Careers Academy, at ahol-

Health Careers Academy Students Research Disparities in Asthma and Other Chronic Diseases

As part of its commitment to community-based research, CCHERS staff designed and conducted a fifteen-week asthma research course for students at the Health Careers Academy (HCA), a small college-preparatory high school for Boston students exploring careers in the health professions and related fields. The main purpose of this course was to expose students to elements of community-based participatory research, focusing on the asthma epidemic. Eleven HCA students from Mattapan, Dorchester, Roxbury and Jamaica Plain enrolled in the course, with a multi-disciplinary teaching staff that included faculty from the Harvard School of Public Health, Northeastern University, CCHERS staff, and community health professionals who have expertise in specific aspects of asthma and health disparities.

During the first half of the course, we discussed the asthma epidemic in America's inner cities and factors contributing to disparities in asthma. Meenakshi Verma, Director of the Jamaica Plain Asthma Environmental Initiative addressed issues of community asthma education and advocacy. She helped the students understand the severity of the asthma epidemic and the need to conduct asthma research in our communities. Dr. Jonathan Levy, Assistant Professor at Harvard School of Public Health, conducted a discussion about the role of genetics and environmental factors in asthma. Through Dr. Levy's lecture, students gained knowledge about how environmental factors interact with our immune system triggering the inflammatory response observed during asthma episodes.

HCA students also learned to use clinical assessment tools such as peak flow meters, spacers, nebulizers,



From left to right: Samuel Caraballo, Amy Seeherman, Health Careers Academy Students, Delia Hodge

and asthma action plans. This took place under the guidance of CCHERS graduate assistant and pediatric nurse Emily Young. Dr. Dharma Cortes concluded the first half of the course presenting information about factors contributing to health disparities. Dr. Cortes, Senior Research Associate at the Mauricio Gastón Institute at University of Massachusetts – Boston concluded the first half of the course presenting information about asthma care and health disparities in the Latino and African American communities.

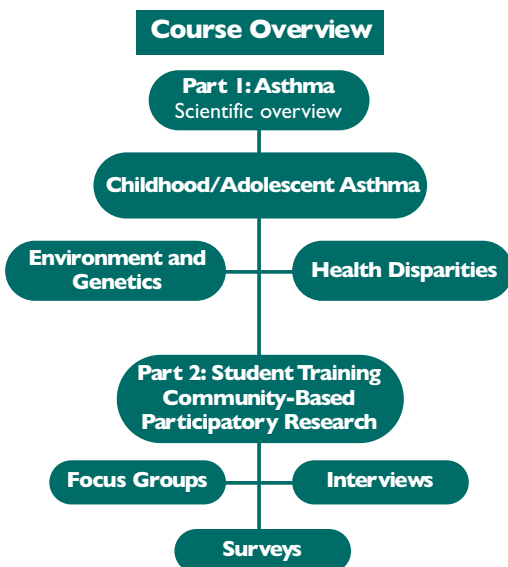
During the second half of the course, Dr. Amy Seeherman, Project Director for CCHERS, introduced students to the key principles of community-based participatory research. She emphasized the importance of a partnership between university-based researchers and community representatives in designing and conducting research to improve the health and well being of community residents. She also introduced qualitative research methods used in community-based participatory research such as focus groups, surveys and interviews. Ms. Nan Regina, Director of the Division of Research Integrity at Northeastern University, taught the students about the important role of the Institutional Review Board (IRB) in community research initiatives.

Through a series of workshops and activities, the students had the opportunity to conduct mock focus groups and develop surveys and sample interviews. CCHERS staff members, Beverley Russell, Delia Hodge, and Samuel Caraballo led this section of the course. As part of their final evaluation, students were asked to apply research skills and knowledge gained from the course to another chronic disease or a particular health issue affecting their community. Students formed teams to conduct research for a final group presentation.

Upon completion of the course, CCHERS placed some of the students who participated in the program in summer job/internships at its partner community health centers. Through this educational experience, we hope to equip our local youth with skills to contribute to community research efforts. We also seek to provide an educational experience that will encourage young people from Boston communities to pursue careers in the health professions and related fields

Note: On behalf of CCHERS and Health Careers Academy, we would like to thank researchers, clinicians, and community advocates who helped make this program a success. Your contribution is greatly appreciated!

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Asthma and Community Health Resources

Asthma Resources

Alliance for a Healthy Tomorrow

c/o Clean Water Fund

36 Bromfield Street, Suite 204 , Boston, MA 02108

(617) 338-8131

Citizen driven initiative to support the "Healthy Cleaning Products Act" to reduce asthma and other health threats from cleaning products used in schools, hospitals, day care centers, and public housing.

Alternative for Community and Environment, Inc.

Roxbury Environmental Empowerment Project

(REEP)

2343 Washington Street, 2nd Floor , Roxbury, MA 02119

(617) 442-3343

ACE provides the educational resources and organizing assistance necessary to enable residents from Boston's urban communities in their efforts to address environmental justice and health problems in their communities. REEP has designed a curriculum, which includes asthma education and prevention and also trains youth to serve as asthma peer educators.

Boston Public Health Commission

Asthma Prevention and Control Program

1010 Massachusetts Avenue, Boston, MA 02118

617-534-5966

Addresses asthma prevention and control through outreach and education for children and families, improving access to quality medical care, researching asthma disparities in Boston, reducing exposures to triggers in the environment, and promoting collaborations with community-based agencies and organizations.

Boston Urban Asthma Coalition

c/o Massachusetts Prevention Center

622 Washington Street, 2nd Floor, Dorchester, MA 02124

(617) 279-2277

A diverse and representative group of participants that have developed a structure that increases the potential for substantially changing systems for asthma control in Boston. The Coalition serves as a clearinghouse and network for those in the city who are committed to improving the problem of asthma in Boston.

City Life/Vida Urbana

3313 Washington Street , Jamaica Plain, MA 02130

617-524-3541

Healthy Homes/Healthy Families program works with four local health centers to assist low-income Latino tenants in using self-advocacy and legal routes to solve housing problems that adversely affect family health and includes a prevention component, providing educational workshops on asthma and lead poisoning.

Jamaica Plain Asthma Environmental Initiative

c/o Martha Eliot Health Center

75 Bickford Street, Jamaica Plain, MA 02130

Community-based education and advocacy organization working to eliminate asthma environmental triggers in homes and in schools.

Legal Services Center

122 Boylston Street, Jamaica Plain, MA 02130

617-522-3003

Free legal assistance program for tenants with asthma helps them advocate for elimination of indoor environmental triggers that affect asthma.

Asthma Internet Resources

American Academy of Allergy,
Asthma and Immunology

www.aaaai.org

American Lung Association

www.lungusa.org

Asthma and Allergy Foundation
of America

www.asthmaandallergies.org

Asthma in Children

www.cheo.on.ca/asthma

Asthma Moms

www.asthamamoms.org

Programa para Prevencion
de Asma

www.cdc.gov/nceh/spanish

Community Health Centers

DORCHESTER

Bowdoin Street Health Center

(617) 754-0100

TTY: 508-587-4224

Codman Square Health Center

(617) 825-9660

TTY: 617-822-1860

Dorchester House Multi-Service Center

(617) 288-3230

Geiger-Gibson Community Health Center

617-288-1140

Harvard Street Neighborhood Health Center

617-825-3400

Neponset Health Center

(617) 282-3200

Uphams Corner Health Center

500 Columbia Road, Dorchester, MA 02125

(617) 287-8000 TTY: 617-287-8000 x8225

EAST BOSTON

East Boston Neighborhood Health Center

10 Grove Street, East Boston, MA, 02128

(617) 569-5800

JAMAICA PLAIN

Brookside Community Health Center

(617) 522-4700

Southern Jamaica Plain Health Center

(617) 983-4100

MATTAPAN

Mattapan Community Health Center

(617) 296-0061

ROSLINDALE

Greater Roslindale Medical & Dental Center

(617) 323-4440

TTY: 617-323-2487

ROXBURY

Dimock Community Health center

(617) 442-8800

TTY: 617-695-7500

Whittier Street Health Center

(617) 427-1000

SOUTH BOSTON

South Boston Community Health Center

(617) 269-7500

A Psycho-Educational Asthma Intervention for Latino Families

Researchers tested a psycho-educational and culturally-specific curriculum designed to help Latino families cope with the care of children with asthma. Led by a bicultural/bilingual health literacy expert, with input from an interdisciplinary clinical team of faculty from the Bouvé College of Health Sciences at Northeastern University, the goal of the curriculum is to teach parents and children about asthma and how to address multiple environmental and inter-actional factors that could improve asthma management.

It has been estimated that more than six million children in the United States have asthma. Asthma is twice as likely to occur among non-whites; and higher death rates due to asthma occur among non-whites. A common denominator among populations disproportionately affected by asthma is their residence in urban areas, mainly in poor inner-city neighborhoods. Thus, it is not surprising that asthma disproportionately affects Latino and African-American children since they are more likely to live in those areas (Cloutier et al, 2002; Crain et al, 1994; Weiss et al., 1993). In the light of these findings, the purpose of this project was to develop and pilot a culturally and linguistically appropriate, family oriented asthma education program for Caribbean background Latino/Hispanic children with asthma and their caregivers.

The six-session family asthma education pilot was based on findings from focus groups conducted with Latino families that have children with asthma. Thirteen Latino caregivers and six children ages 8-12 participated in the pilot study. Children and caregivers participated in separate and combined sessions. The sessions covered basic asthma education, stress management for caregivers, relaxation techniques for caregivers and children, environmental triggers in the home and school, and communication skills with healthcare providers and advocacy. Findings suggest that exposure to the curriculum can improve the quality of life for both caregivers and children. Another important finding indicated a reduction of asthma symptoms and unplanned visits to the doctor. Finally, findings from this pilot documented the feasibility of an intervention study using the curriculum.

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CCHERS – CHESP Partnership

CCHERS is entering into a memorandum of understanding with the Community Higher Education Service Partnership (CHESP) of the University of the Transkei (UNITRA). Led by Professor Khaya Mfenyana, the goal of CHESP is to develop partnership structures and programmatic activities between UNITRA, historically disadvantaged communities within the Transkei sub-region of the Eastern Cape Province, and the service sector, i.e. public, private and non-governmental organizations.

CHESP evolved out of the Kellogg Foundation's University Community Health Partnership Project which focused on education of health personnel through four community health centers established in the surrounding communities. It will expand its involvement at the university to include faculties from arts and sciences, education, economics, and law. Similarly, CCHERS has evolved to include other health disciplines with a focus on development of partnerships to eliminate disparities in health and health care in the communities served by its partner health centers.

The collaborative work between the two organizations will be more formally outlined in a subsequent "twinning agreement," building on the experience and strengths of the partners in the areas of (1) community-based education and service learning for students; (2) health services organization and delivery; (3) community development and empowerment; and (4) community-based participatory research. Initial support for travel, communications and facilitation of discussions as well as development of the twinning agreement have been provided by South Africa Partners, Inc.

Contact: Elmer Freeman, MSW, Executive Director, CCHERS, at e.freeman@neu.edu or Professor Khaya Mfenyana, MD, Director, Department

CCHERS News Briefs

CCHERS Invited Session at Annual Meeting of APHA

CCHERS was invited to organize a special scientific session at the annual meeting of the American Public Health Association in Washington, DC, November 6-10, 2004. The session, entitled "Community-Based Research of Racial and Ethnic Disparities in Health: Guiding Policy and Practice" will describe real cases of community-based public health interventions, and research that involve partnerships between academic researchers and "academic community health centers" to address the range of excess morbidities and mortalities from various diseases that impact urban minority populations in the City of Boston. As the organizer of the session, CCHERS Executive Director, Elmer Freeman will serve as both moderator and presenter with other presenters that include: Dr. Roger Wilson of the New England Eye Institute, Bridget McKenzie, RN, MSN, Clinical Director at Whittier Street Health Center, Dr. Michelle Jacobs, Clinical Pharmacist, School of Pharmacy at Northeastern University, Dr. Bobbi Gottlieb, physician at Brookside Community Health Center, and Dr. Brian Gibbs and Dr. Deborah Prothrow-Stith of the Harvard School of Public Health.

BHA Constructing 400 Healthy Homes

As a result of continued support from the Boston Housing Authority, nearly 400 new housing units in Boston will be constructed in a manner that minimizes asthma triggers and provides a healthier living environment for residents. The construction of Maverick Gardens represents a model of health and affordable housing. Innovations include the use of quiet and effective fans to vent bathrooms; installation of flashing under windows to prevent moisture problems; no plumbing in exterior walls; no paper-faced gypsum board behind showers; sealing holes to prevent air flow; no carpet in wet areas; and sealing utility openings and joints. In addition, the project will construct several units without any carpet, designate certain units as smoke-free and design maintenance actions to minimize asthma triggers.

Contact: Kate Bennett at kate.bennett@bostonhousing.org

Medication Assistance Program Funded

The Boston Foundation awarded a \$40,000 grant to CCHERS to implement a Medication Assistance Program in three health centers participating in the Boston Clinical Pharmacy Practice Network (BCPPN) in partnership with Northeastern University's School of Pharmacy. The BCPPN was funded as a demonstration project to ensure access to affordable prescription drugs and clinical pharmacy services for patients of community health centers. The medication assistance program to be implemented at several health centers, will target eligible uninsured patients and connect them to manufacturers discount programs that provide pharmaceuticals to eligible patients at no cost and/or at substantial-

News of Our Partners

Bouvé College Hosts Conference on Urban Health

The Institute on Urban Health Research under the leadership of Dr. Hortensia Amaro is the primary organizer, coordinator and sponsor of the 3rd International Conference on Urban Health, which will be held at Northeastern University, October 20-22, 2004. The conference brings together an international group of scholars, researchers and community practitioners in urban health in a forum for discussion of the conference theme: "The Global Urban Health Agenda: Setting Priorities and Building Infrastructure."

Boston Public Health Commission Establishes Men's Health Coalition

Dr. John Rich, Medical Director of the Boston Public Health Commission and co-author of "A Poor Man's Plight: Uncovering the Disparity in Men's Health," an issue brief of the W.K. Kellogg Foundation's Community Voices Initiative, is leading the development

of a local coalition to address men's health and health care in the City of Boston. According to Courtney Grey, Manager of the Men's Health Programs, "the coalition will serve as a forum for Boston health care providers and residents organizing to improve health care access for men." A number of projects have been initiated, including, several community forums, health screenings, and an outreach database.

Bowdoin Street CAP Staff Receive Awards

Marjorie Mills, Community Advocacy Program Family Advocate at Bowdoin Street Health Center received the "Outstanding Outreach Educator Award" of the Community Health Education Center of the Boston Public Health Commission for "her dedication, perseverance, resourcefulness and exceptional ability to engage and connect clients to needed services." Richard Foran, the Community Health Coordinator and Ms. Mills' supervisor received the first annual "Fernando Miranda Award," specifically for "his ability to reach out to diverse populations and work with residents of all ages."

Brookside Physician Elected to Board of CCPH

Dr. Bobbi Gottlieb, physician at Brookside Community Health Center and clinical instructor at Harvard Medical School, was elected to the national board of directors of Community Campus Partnerships for Health. She began serving her three-year term in May, just as Elmer Freeman, Executive Director of CCHERS began his year as Chairman of the Board.

Men of Boston Cook for DotWell

The Dorchester Wellness (DotWell) partnership established between Codman Square Health Center and Dorchester House Multi-Service Center will be the beneficiary of this year's proceeds from the very popular "Men of Boston Cook" annual fundraiser on September 30, 2004. The partnership guarantees high-quality clinical and community health services across both sites, addressing health disparities, meeting the complex needs of a changing Dorchester community, and building social capital in and across neighborhoods.



**Center for Community
Health Education,
Research and Service**

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