Break the Cycle

of Environmental Health Disparities

Monday, April 2, 2012
8:30 am - 4:30 pm

Alperin Auditorium
Emory University Rollins School of Public Health
1525 Clifton Road
Atlanta, Georgia 30322

A project of

Southeast Pediatric Environmental Health Specialty Unit
at Emory University
and
The Institute for the Study of Disadvantage and Disability, Inc.
Gerald Blaney - Mercer U. School of Medicine, Dept. of Community Medicine
Disparities in arsenic exposure among children and adolescents in the United States
Yudan Wei, PhD, MD, mentor
Chronic arsenic exposure might be associated with cognitive delays, reduced IQ, poor memory in developing children, and a range of negative health outcomes later in life. This study aims to reduce environmental health disparities among children and adolescents by identifying factors that contribute to the risk for arsenic exposure and by identifying high-risk populations.

Geoffrey “Cappy” Collins, MD - Mt. Sinai School of Medicine, Preventive Medicine
Cyclopedia: Improving Social Health Through a Positive Youth Development Bicycle Program
Perry Sheffield, MD, mentor
Urban, low-income and minority populations are disproportionately affected by numerous health disparities such as poorer school performance and higher rates of obesity in adolescents. Effective community-based positive youth development (PYD) initiatives may address their psychosocial root causes. The potential of bicycling programs, as a particular form of PYD programming, is great, but has not been evaluated. Cyclopedia is a 12 week program of rides, each with a lesson plan, and opportunities for self-expression in the form of writing and photography. We administered a locally-validated survey to assess program efficacy.

Vihra Groueva – Tulane Law School
Effectiveness of foreign food aid initiatives in addressing child malnutrition and long-term impact on children’s health
Colin Crawford, JD, mentor
Child malnutrition is a major problem in the world. As current food aid initiatives are improved to more effectively address child malnutrition by including better sources of nutrition; we would anticipate a decrease in child malnutrition and an improvement in overall health outcomes. By comparing policies and methods of food aid in a country where there is short-term acute need and a country in constant need of aid, we anticipate that the difference in aid provided to a country in acute need will be more effective in improving health outcomes.

Hilary Henry – Duke University, Children’s Environmental Health Initiative, Nicholas School of the Environment
Traffic-related air pollution and pediatric asthma in Durham, NC
Pamela Maxson, PhD, mentor
Pediatric asthma prevalence increases with air pollution. This study will investigate the relationship of asthma case frequency with distance to roadways. Data on asthma cases from the Duke University Health System and data on county roads from Durham County will be analyzed spatially. We predict that pediatric asthma case frequency will increase with decreasing distance to major roadways. Mitigating risk, decreasing air pollution exposure from roadways, and increasing resiliency will be necessary to break the cycle of environmental health disparity.

Katheryne Kramer - Tulane Law School
Sufficiency of Community-Collected Data as Evidence in Citizen Suits under the Clean Air Act
Colin Crawford, JD, mentor
Community-collected data gathered by citizens living adjacent to industrial polluters has generally been unable to be used in court to prove violations of the Hazardous Air Pollution provisions of the Clean Air Act. Any community-collected data is subject to Rule 702 of the Federal Rules of Evidence, which sets standards for expert testimony. While the trial judge has discretion under this rule, given the lack of studies on the accuracy and reliability of community-collected data, it would be difficult to decide to admit the data. This project will explore this dilemma further.

Lauren Messina – Emory Rollins School of Public Health, Epidemiology
Temporal trends in small-area violent crime and preterm birth
Michael Kramer, PhD, mentor
Infants born before 37 gestational weeks are considered preterm. Preterm birth is associated with significant perinatal mortality; for children that survive, preterm birth is associated with reduced cognitive ability and other obstacles for children later in life. Maternal exposure to community violence has been shown to be associated with preterm birth, but the causal effect of violence on this adverse birth outcome is unknown. I will assess the temporal trends in the association between small-area violent crime and preterm birth in Atlanta, Georgia by calculating the odds of preterm birth, controlling for neighborhood and individual level characteristics.
The impact of community garden programs on food deserts in a metropolitan Atlanta community

Stephanie Miles-Richardson, DVM, PhD, mentor

People living in less affluent urban areas tend to have less access to high quality food. Food deserts are defined as low income communities without ready access to healthy, affordable food. In metropolitan cities, community gardens have been instrumental in bridging the gap to decrease the presence of food deserts. In areas described as food deserts, community gardens may serve as a critical component to address food deserts in urban communities. This project will include a windshield survey of such a community in metropolitan Atlanta to assess whether a food desert exists, and will review the literature about the impact of community gardens on food deserts in urban communities.

GRANDD H-HAP: Home and Health In-Home Assessments of Grandparents Raising Grandchildren with Disabilities

Maeve Howett, PhD, APRN, CPNP-PC, IBCLC and Janice Nodvin, Project GRANDD Director, mentors

Project GRANDD, a support program for Grandparents Raising and Nurturing Dependents with Disabilities has been caring for families since 2005. A critical problem identified as contributing to diminished quality of life was the grandparent’s own poor health and wellness as well as lack of access to available resources. To address these problems, nurse practitioner students made home visits to do a health history and physical, an environmental and safety home assessment and a community windshield survey. This project describes the initial pilot that included six families cared for by 12 nurses and the resultant findings in this vulnerable population.

GUEST SPEAKERS

Perry Sheffield, MD Mt. Sinai School of Medicine, Preventive Medicine

Breaking the Cycle in Advance: Anticipating future challenges through climate adaptation efforts

While the cycle of environmental disparities is well established, a changing global climate threatens to worsen the situation. Increasing global temperatures, shifting precipitation patterns, and rising sea levels negatively affect food production, render many populated coastal areas uninhabitable, and increase deadly extreme heat events in ever-growing urban centers around the world. This presentation reviews some of the climate change adaptation efforts that are taking place both within the United States and internationally that are striving to get a head start on what is likely to be a defining environmental hazard of the next century.

Marian Jackson, President, People First of Georgia

56-year-old Marian Jackson is president of People First of Georgia, an advocacy group for people with disabilities. Growing up, she lived with her grandparents. Both were field hands, and neither knew how to read. For a long time, Marian didn’t either.

Rebecca Watts Hull, Director, Mothers and Others for Clean Air

Mothers & Others for Clean Air is a partnership of leading public health, environmental and child advocacy organizations dedicated to improving air quality for all Georgians by educating the public about the negative health impacts of air pollution and engaging people in both individual change and public policy advocacy. Ms. Watts Hull will focus on School Siting: Breaking The Cycle of Environmental Impact.
**Overview of Break the Cycle**

**Break the Cycle** is a collaborative interdisciplinary research and training program with University faculty who mentored graduate students in academic tracks that focus on the environmental impact on children’s health. The target populations are communities where the environmental hazards are related to circumstances of social and economic disadvantage. Each student was required to develop a project that focuses on reducing or preventing environmental health related illnesses and disorders for children who live in these communities. Each student developed a creative project to “break the cycle” at any point.

**Environmental Health Disparities**

The diagram below represents the cycle of social and economic disadvantage as it is reflected in the physical and social environmental factors that can affect the health, growth and development of children and contribute to our societal challenge of *Environmental Health Disparities*. Ample evidence across a variety of academic and public policy domains supports the relationships and patterns depicted in the diagram. There is no question of the need to “**Break the Cycle**” at any level and thereby reduce the phenomenon of Environmental Health Disparities and promote good health and well-being for children and their families.