

# BREAK THE CYCLE 12

BREAK THE CYCLE OF ENVIRONMENTAL HEALTH DISPARITIES

Reducing Children's Environmental Health Disparities and Promoting Health Equity for all Children

**APRIL 24-25, 2017**

## A PROJECT OF:

**SOUTHEAST PEDIATRIC ENVIRONMENTAL HEALTH SPECIALTY UNIT (PEHSU)  
INNOVATIVE SOLUTIONS FOR DISADVANTAGE & DISABILITY (ISDD)**

### **ALSO SPONSORED BY:**

**GEORGIA COUNCIL ON DEVELOPMENTAL DISABILITIES (GCDD)  
EMORY SUSTAINABILITY INITIATIVES**

**Monday April 24, 2017**

**8:30 AM Registration & Breakfast**

**9:00 AM Opening of Program**

Robert Geller, MD, Director, Southeast PEHSU, Professor of Pediatrics, Emory University, Atlanta GA

**9:10 AM Message from the ATSDR**

Michael Hatcher, DrPH, Chief, Environmental Medicine Branch, Division of Toxicology and Human Health Sciences, ATSDR, CDC, Atlanta GA

**9:20 AM Message from the EPA**

Ruth Eztel, MD, PhD, Director of the Office of Children's Health Protection, United States Environmental Protection Agency, Washington DC

**9:40 AM Introduction to Break the Cycle**

Leslie Rubin, MD, Director, Break the Cycle Program, Associate Professor, Morehouse School of Medicine, Co-Director Southeast PEHSU, Atlanta GA

**10:00 AM Home, Belonging and the Incarcerated Mother: A study on the effects of mass incarceration on children's behavioral health outcomes**

Tatenda Mangurenje, student, Peter Brown, PhD, mentor, Departments of Anthropology and Global Health, Emory University, Atlanta GA

**10:20 AM Factors affecting the length of stay in drug exposed infants admitted to the Neonatal Intensive Care Unit**

Pratibha Agarwal, MD, student, David Wood, MD, MPH, mentor, Department of Pediatrics, East Tennessee State University, Johnson City TN

**10:40 AM Health Break**

**11:10 AM Impact of early life housing on child behavior at age seven**  
Abby Gaylord, student, Julie Herbstman, PhD, Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York City NY

**11:30 AM A Silver Lining for High-Risk Infants: Coordinated Care for Children 0-32 Months**  
Lea Redd, student, Bree Andrews, MD, MPH, Department of Pediatrics—Neonatology, The University of Chicago Medical Center, Chicago IL

**11:50 AM Lunch**

\$10 Optional lunch if reserved at registration– We encourage you to stay and network with presenters and attendees

**1:30 PM Neurodevelopmental Outcomes of recent exposure to DDT in children of selected communities of Zambia**  
Nosiku Munyinda, student, Charles Michelo, BSc, MBChB, MPH, MBA, PhD, Mentor, Department of Public Health, University of Zambia, Lusaka, Zambia

**1:50 PM Racial Disparities in Access to Municipal Water Supplies in the American South: Impacts on Children's Health**  
Frank Stillo, student, Jackie McDonald Gibson, PhD, mentor, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill NC

**2:10 PM KEYNOTE SPEAKER**  
**Environmental Justice Research Roadmap: Science and scientific gaps to help address different aspects of environmental justice**  
Andrew Geller, PhD, MS, Deputy Director, United States Environmental Protection Agency, Sustainable and Healthy Communities Research Program, Washington DC

**2:30 PM Health Break**

**3:00 PM Interactive Educational Lead Hazards Class to Children at the Boys and Girls Club in Metro Atlanta - Pilot**  
Catherine Evans, Amrita Mahtani, Sam Peters, Patrick Fueta, students; W. Michael Caudle, PhD, mentor, Department of Environmental Health, Rollins School of Public Health, Emory University, Atlanta GA

**3:20 PM The Role of Social Support and Adolescent's Mothers Breastfeeding Practices in North Carolina**  
Colleen Clark, student, Kimberly Price, PhD, 24  
, mentor, Public Health Program, Center for Graduate Studies at Asheville, Lenoir-Rhyne University, Asheville NC

**3:50 PM The effectiveness of a community-based program of nutrition education and physical activity to decrease health disparities of childhood obesity**  
Hope Bentley, student, Jannett Lewis-Clark, MOT, OTD, OTR/L, CLT, mentor, Department of Nursing and Allied Health, College of Veterinary Medicine, Tuskegee University, Tuskegee AL

**4:10 PM**      **Urban Farming as a Model for Positive Youth Development**  
Luis Torres, student, Cappy Collins, MD, mentor, Department of Public Health, Icahn School of Medicine at Mt. Sinai, New York City NY

**4:30 PM**      **Review and Conclusion**  
Leslie Rubin, MD

**5:00 PM**      **Adjourn**

**Tuesday, April 25, 2017**

**Resilience: The Phenomenon of Overcoming Adversity**

**8:00 AM**      **Registration & Breakfast**

**8:30 AM**      **Introduction**  
Leslie Rubin MD, Director, Break the Cycle Program, Associate Professor, Morehouse School of Medicine, Co-Director Southeast PEHSU, Atlanta GA

**8:50 AM**      **Started from the bottom: My resilience story**  
Natalie Hernandez, PhD, MPH, Assistant Professor, Prevention Research Center, Post-Doctoral Fellow, Center of Excellence on Health Disparities, Department of Community Health and Preventive Medicine, Morehouse School of Medicine, Atlanta GA

**9:10 AM**      **Resilience**  
Jessica Spraggins, MPH, CCPH Health Education Specialist, Division for Heart Disease and Stroke Prevention (DHDSPP), Centers for Disease Control (CDC), Atlanta GA

**9:30 AM**      **Experience, Strength, and Hope**  
Lucy Hall, BS, NCAC, CASAC, CEO and Founder, Mary Hall Freedom House, Atlanta GA

**9:50 AM**      **Resilience: An Anthropological Perspective**  
Mel Konner, MD, PhD, Samuel Candler Dobbs Professor, Department of Anthropology, Program in Neuroscience and Behavioral Biology, Emory University, Atlanta GA

**10:10 AM**      **Challenges to Work Groups**  
Leslie Rubin, MD

**10:15 AM**      **Health Break**

**10:30 AM**      **Group Discussions**

**11:45 AM**      **Feedback from Groups and Conclusion**

**12:30 PM**      **Adjourn**

## Guest Presenters

### **Michael T. Hatcher, DrPH**



Dr. Michael Hatcher is a public health professional with more than 39 years of health promotion and disease prevention experience at the local, state, and federal levels of public health. He has led health promotion and disease prevention planning, initiative development, and implementation of interventions that resulted in measurable population-level health improvements. His achievements include articulating the *Principles of Community Engagement*, redefining public health practice through the *Essential Public Health Services* and *National Public Health Performance Standards*, which have improved health system operation and performance improvement. He has also conducted health services research at the interface of population health and personal health care services. Dr. Hatcher has served as chief for the environmental medicine branch at ATSDR for nearly 14 years and has facilitated expansion of the Pediatric Environmental Health Specialty Units' work to include protecting expectant mothers and children at their earliest stages of development from hazardous substances in the environment.

### **Ruth Etzel, M.D., Ph.D.**



Dr. Ruth A. Etzel is the Director of the U.S. Environmental Protection Agency's Office of Children's Health Protection. She received her PhD in Epidemiology from the University of North Carolina Chapel Hill School of Public Health. She was a pioneer in studying the health effects of exposure to secondhand smoke among infants; her work led to nationwide efforts to reduce indoor exposures to tobacco, including the ban on smoking in US airliners. Dr. Etzel is the founding editor of the influential book *Pediatric Environmental Health* (a 4th edition will be published in 2018). This book has helped to train thousands of doctors who care for children about how to recognize, diagnose, treat and prevent illness among children from hazards in the environment. She co-edited the *Textbook of Children's Environmental Health*, published in 2014. Dr. Etzel served as the Senior Officer for Environmental Health Research at the World Health Organization from 2009 to 2012. In the U.S., she has served in numerous public-sector leadership positions including: Centers for Disease Control and Prevention (Founding Chief of the Air Pollution and Respiratory Health Branch), Department of Agriculture (Director of the Division of Epidemiology and Risk Assessment) and Indian Health Service (Research Director at the Alaska Native Medical Center). She is a courageous leader in bringing health risks to children to public attention and working collaboratively towards solutions.

### **Andrew Geller, Ph.D., M.S.**



Dr. Andrew Geller is the Deputy National Program Director for EPA's Sustainable and Healthy Communities (SHC) Research program and lead author on EPA's Environmental Justice Research Roadmap. Dr. Geller led SHC's strategic planning effort to develop the Office of Research and Development's research focused on providing science and tools to help communities identify and reach sustainability goals. Dr. Geller's research has included the development of community and tribal decision support tools, the impacts of environmental exposures on older adults, and efforts in neurotoxicology to examine the impacts of environmental exposures on visual development and function.

### **Natalie D. Hernandez, Ph.D., M.P.H.**



Dr. Natalie Hernandez's research interests are sexual and reproductive health disparities among ethnoracial minority women, social determinants of health, and health policy. Dr. Hernandez is also a former Satcher Health Policy Leadership Fellow. Prior to her doctoral studies, Dr. Hernandez conducted Community-Based Participatory Research and held leadership positions in a number of coalitions dedicated to advancing health equity. In addition to supporting community health promotion, education, and advocacy; she also provided technical assistance to support the provision of high quality culturally relevant, sensitive, and linguistically appropriate health care and prevention services.

Dr. Hernandez's expertise includes the health status and health needs of Latinos, promotores de salud (community lay health educators), HPV and cervical cancer among Latinas and other ethnoracial minorities, family planning, and health advocacy. She has published and presented her work at various international, national, state, and local conferences and published in peer-review journals. Dr. Hernandez is a guest editor for a special issue of the journal *BioMed Research International*. This issue will focus on the epidemiology of adverse birth outcomes particularly on emerging genetic/epigenetic, biomedical and statistical methodologies.

## Jessica Spraggins, M.P.H., CCPH



For the past 7 years, Jessica Spraggins has been a Health Education Specialist on the Health Communications Team in CDC's Division for Heart Disease and Stroke Prevention (DHDSPP). Prior to her work in DHDSPP, Jessica worked in the same capacity in the Health Communications Branch of CDC's Office on Smoking and Health for 6 years. Prior to her work in chronic disease prevention at CDC, Ms. Spraggins worked with the American Cancer Society, the Yale Center for Children with Special Health Care Needs, and ran her own daycare center. Ms. Spraggins is a graduate of The George Washington University where she received her BA in Health Science and Yale University, where she received her Master's in Public Health.

Aside from her work in public health, Ms. Spraggins has spoken previously as a survivor of childhood abuse and trauma. Her participation in this panel is from a personal perspective and incorporates how she used public health knowledge as part of her healing.

## Lucy Hall-Gainer, B.S., NCAC, CASAC



Lucy Hall is the Founder and CEO of Mary Hall Freedom House. As the youngest of seven siblings, Lucy came from a family that battled generational addiction. Her mother died of alcoholism when she was six, and left behind seven children, some of whom later lost their lives to substance abuse. The impression her mother left in her life inspired Lucy to reach out to women who suffer from addiction and women with children. She desired to help bridge the gap from troubled lives and help women become independent and self-sufficient.

Today, her dream has become a reality with Mary Hall Freedom House (MHFH), named in memory of her mother. Through a community of sisterhood, Lucy coaches women to free themselves from the past and live every day for the future. Over 10,000 women and children have achieved recovery through Mary Hall Freedom House since founded in 1996; by empowering them to end the cycle of generational addiction, poverty and homelessness. *"Everyone here knows that God is really the head of this agency," Lucy states. "He has made it possible for us to minister to the women, children, and families sent through our doors."* A native New Yorker, Lucy graduated from Shorter University with a degree in Human Services and holds national credentials as a substance abuse counselor. Lucy is the recipient of many awards that include: the 2002 Robert Wood Johnson Community Health Leader Award, the 2003 Mary Magdalene Award, 2003 Atlanta Magazine "Women Making a Mark" Award, the 2006 Turner Broadcasting Systems Pathfinder Award, the 2008 Leadership Sandy Springs Award, the 2010 All-State Statue to Greatness Award, the 2011 City of Sandy Springs MLK Award, the 2013 Restorative Justice Center "Community Warrior Award," the 2014 Turknnett Leadership Character Award, and the 2016 Heart of Giving Award from Alpha Kappa Alpha Sorority, Inc. In all, Lucy enjoys her family, faith, and fitness. She is the proud mother of two children, Mary and Christian who are all faithful members of Elizabeth Baptist Church.

## Melvin Joel Konner, M.D., Ph.D.



Dr. Melvin Joel Konner is the Samuel Candler Dobbs Professor of Anthropology and of Neuroscience and Behavioral Biology at Emory University. He studied at Brooklyn College, CUNY (1966), where he met Marjorie Shostak; they married and had three children. He earned his PhD in biological anthropology from Harvard University in 1973. He spent two years doing fieldwork among the Kalahari San or Bushmen, studying infant development and the hormonal mechanism of lactational infertility. After six years on the Harvard faculty, he attended Harvard Medical School (MD, 1985), then moved to Emory as department chair.

From 1985 on, he helped develop the concept of a Paleolithic diet and its impact on health, publishing along with S. Boyd Eaton. He is the sole author of eleven books, including *The Tangled Wing: Biological Constraints on the Human Spirit* (Holt, 2002), *The Evolution of Childhood: Relationships, Emotion, Mind* (Harvard, 2010), and most recently *Women After All: Sex, Evolution, and the End of Male Supremacy* (Norton, 2015).

He has held grants from the National Institute of Mental Health and National Science Foundation, and has been a fellow of the American Association for the Advancement of Science, the Center for Advanced Study in the Behavioral Sciences, the John Simon Guggenheim Memorial Foundation, and the Foundations Fund for Research in Psychiatry. He was elected to the American Academy of Arts and Sciences in 2016.

His parents were deaf from their own childhood. Two decades ago he lost Marjorie to cancer after an eight-year struggle, beginning when their children were ages 9, 6, and 15 months. He is now happily remarried to developmental psychologist Ann Cale Kruger (College of Education, GSU; Project PREVENT; Break the Cycle mentor) and the grandfather of two.

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MONDAY APRIL 24<sup>th</sup> 8:30 AM to 5:00 PM

RESILIENCE: THE PHENOMENON OF OVERCOMING ADVERSITY

TUESDAY APRIL 24<sup>th</sup> 8:30 AM to 12:30 PM

Emory University  
Health Research Sciences Building  
Rollins Auditorium, 1<sup>st</sup> Floor  
1760 Haygood Drive, Atlanta GA 30322

**Register Now**

NO CHARGE, BUT  
OPTIONAL \$10 LUNCH

REGISTRATION IS REQUESTED  
OPTION ON MONDAY BY

RESERVATION

**PARKING:** Conference participants can use the parking decks (there is a fee) for CHOA-Egleston or Emory Hospital and walk to HSRB

Register at: <http://bit.ly/BreakCycle12>  
Questions: [laura.wells@emory.edu](mailto:laura.wells@emory.edu) or 404-310-8129



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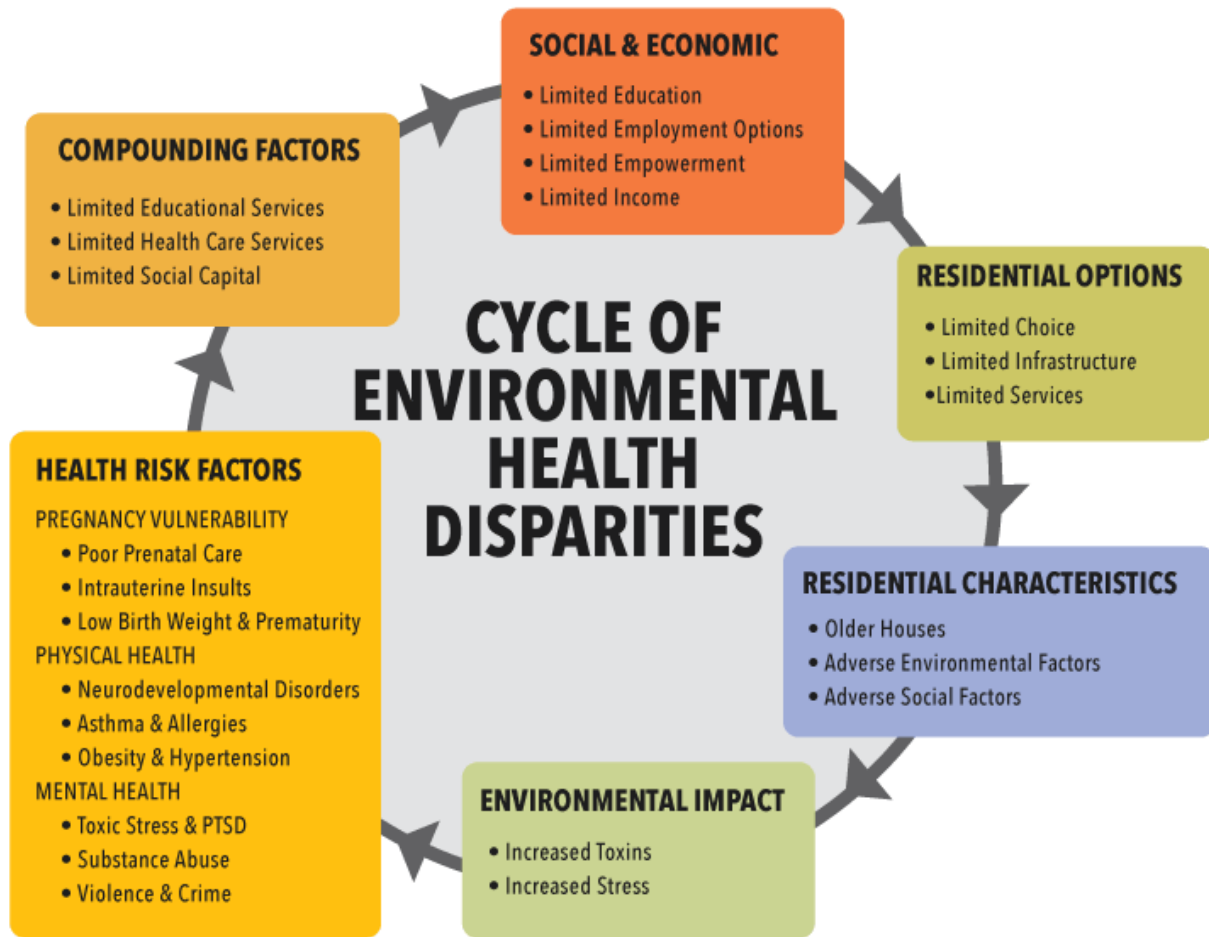
### Overview

The threats to children's health and well-being are often multiple and complex. Children are uniquely vulnerable to environmental toxicants for several reasons: they are growing rapidly; they have a more active metabolic rate than adults; they breathe larger amounts of air for their size; they have a greater surface area-to-body mass; they are closer to the ground, and they may pick up and play with objects and then put these objects in their mouths and may even swallow them. They are at risk, therefore, to absorb more toxins in the environment through their skin, from the air they breathe, from the food they eat, and the water they drink. Also, they do not yet have the fully sophisticated metabolic systems to detoxify some chemicals, or they may metabolize chemicals into toxic metabolites at a different rate than adults. Furthermore, because they are growing rapidly and their organs and organ systems are developing, they may incorporate toxins into their developing organ systems which can have immediate adverse impact. They are more likely to suffer long-term consequences on organ structure and function that may only be evident much later in life.

Today, some of the major health concerns for children, such as asthma, obesity and its complications of hypertension and diabetes, and neurodevelopmental disorders (most commonly learning disabilities, attention deficit hyperactivity disorder and autism), are often caused or exacerbated by environmental factors. Not only does the presence of a disorder or disability create significant complications that affect the child's health as well as learning and social opportunities, but it may adversely affect the child's potential for self-actualization and fulfillment. This is a challenge, not only at an individual level, but also at the level of the family and community and, ultimately, it also has an impact on society in terms of prevention and management strategies, and utilization of resources as well as how society cultivates its future citizens, workforce, and leaders.

Not only are children vulnerable to the chemical, physical and microbiological factors in their environment, they are uniquely sensitive to the social and economic environment in which they live, learn, and play. It has become increasingly evident that children who grow up in an environment of social and economic disadvantage are at greater risk for exposure to toxins like lead and other chemicals. They are impacted by the age and quality of the houses in which they live as well as the schools where they learn, the infrastructure of the communities in which they live, the risks of violence that they may experience, and the associated emotional stress that they face on a day to day basis. The vulnerability of these children is therefore magnified by their risks for exposure and by limitations in support for optimal education, access to quality health care, infrastructure, and limited social capital. The sum of all these risks is great because all of these risks are cumulative.

The diagram below illustrates the elements that operate when children are born into circumstances of social and economic disadvantage and the resultant impact that manifests in disparities in health and education. The diagram also illustrates how the pattern becomes intergenerational and traps people in this cycle.



Our real challenge is how to Break the Cycle and liberate the children by providing a more nurturing and supportive environment, greater access to quality education and health services and to opportunities for success in life. We know this can be achieved at many different levels.

At a fundamental level, the idea of changing the life of one child for the better can have a positive impact not only for that child, but also for the family, for other people who know that child, and for what that child can do in the present and in the future to change the world for the better. So, it might be said that “if you save the life of one child, you may be saving the whole world!” Ideally, it would be desirable to improve the lives of as many children as possible today, so that we have a better world in the future. Realistically, however, doing so would require substantial changes, if not complete redesign, to many of our social institutions, including the health care delivery system, educational system, social safety net systems and economic and financial systems. Because those changes are beyond our scope and require large shifts in politics and economics over long periods of time, we have developed an approach to *Break the Cycle* and change the world a little at a time towards achieving health and educational equity for our most vulnerable children.