CEHN 2017 Contributed Posters

Gas-Powered Leaf Blower Sound and Impact on Children - Jamie L Banks, Ph.D, MS
Authors: Erica Walker¹, Jamie L Banks²
Affiliation: ¹Harvard School of Public Health; ²Quiet Communities, Inc.
Objective: To characterize loudness and frequency of sound from GLBs and related equipment over distance and discuss potential impacts on children’s health.

Air Pollutants and Ecological Conditions around Tribal Schools (US) - Nilla Barros, PhD³
Authors: Laura Mckelvey¹, Ken Bailey², Nicolle S. Tulve³
Affiliation: ¹U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, NC; ²U.S. Environmental Protection Agency, Office of Research and Development, Office of Science Policy, Cincinnati, OH; ³U.S. Environmental Protection Agency, Office of Research and Development, National Exposure Research Laboratory, Research Triangle Park, NC
Objective: To: 1) identify air quality patterns and air pollution sources for school-aged children in tribal areas; 2) identify the extent and type of ecological conditions surrounding tribal schools in different climates.

Flame retardant exposure and social behavior in preschoolers - Andres Cardenas, PhD, MPH as Presenting Author
Authors: Molly Kile¹, Shannon Lipscomb², Megan MacDonald¹, Megan McClelland¹, Andres Cardenas³, Richard P. Scott¹, Steven G O'Connell¹, Kim Anderson¹
Affiliation: ¹Oregon State University, Corvallis OR, ²Oregon State University Cascades, Bend OR, ³Harvard T.H. Chan School of Public Health, Boston MA
Objective: Evaluate the exposure-response relationship between flame retardant exposure and teacher-rated social skills in children entering preschool.

Economic Value of Home-based Asthma Interventions - Kevin Chan, MBA
Authors: Andrew Olson, Brendan Brown, Trent Van Alfen, Kevin Chan, Michael McKnight
Affiliation: Green & Healthy Homes Initiative
Objective: A presentation of findings from the Green & Healthy Homes Initiative's Asthma Pay For Success feasibility studies on a cohort of five sites in regards to the best practices related to pricing health outcomes. The purpose of the economic feasibility analysis is to determine if it is possible to develop a PFS transaction using projected underlying economics of the comprehensive asthma management program at each site.
The Reproductive Environmental Health Network - Ann Ferrero, MPH

Authors: Ann Ferrero
Affiliation: Health Resources and Services Administration, Maternal and Child Health Bureau
Objective: In 2014, the Maternal and Child Health Bureau (MCHB) developed and funded the Reproductive Environmental Health Network (REHN). The purpose of the REHN is to improve maternal and child morbidity and mortality associated with pre-and post-natal environmental exposures by providing evidence-based information on the safety of exposures in pregnancy and lactation.

Review of Non-Chemical Stressors in a Child’s Social Environment - Kathleen Hibbert, Ph.D

Authors: Kathleen Hibbert, Nicolle S. Tulve
Affiliation: U.S. Environmental Protection Agency, Office of Research and Development, National Exposure Research Laboratory, Systems Exposure Division
Objective: The objective of this poster is to synthesize the extant research on non-chemical stressors from a child’s social environment.

Exposure to Bisphenol A & Common Substitutes among Mothers & Newborns - Erin S. Ihde, MA

Authors: Erin Speiser Ihde¹, Stacy Zamudio², Ji Meng Loh³, Yalin Zhu³, John Woytanowski⁴, ⁵, Lawrence Rosen¹, Min Liu⁶, Brian Buckley⁶
Affiliation: ¹The Deirdre Imus Environmental Health Center®, Hackensack University Medical Center, ²Department of Obstetrics and Gynecology, Hackensack University Medical Center, ³NJ Institute of Technology, ⁴St. George’s University School of Medicine, ⁵Drexel University College of Medicine, ⁶Environmental and Occupational Health Sciences Institute
Objective: Our objective was to identify the most common BP analogs currently in use and to develop a novel assay to test for their presence in human blood and urine to explore potential in utero exposure.

Hazardous Safeguards - Elizabeth O’Nan

Authors: Elizabeth O’Nan
Affiliation: Protect All Children's Environment
Objective: Education of physicians and the public as to the risks from indoor use of dry chemical fire extinguishers to both health and the home environment.

Consequences of Childhood Chemical Injury - Elizabeth O’Nan

Authors: Elizabeth O’Nan
Affiliation: Protect All Children's Environment
Objective: It is hoped this research shall bring justice, medical parity, greater understanding and better treatment to children injured and or disabled by chemicals.

Environmental Health Science Translational Research Framework - Kristi Pettibone, Ph.D
Authors: Kristi Pettibone
Affiliation: National Institute of Environmental Health Sciences
Objective: NIEHS recognizes the need for a TR framework that 1) allows us to capture all the nuances of environmental health research at the basic end of the research spectrum; 2) represents the full spectrum of our grantees research; and 3) provides a common language for describing TR. This framework expands on existing TR frameworks so they are more applicable for TR trajectories in environmental health science.

Early Life Exposure and Obesity/Metabolic Disease in Childhood - Karin Russ, MS, RN
Authors: Sarah Howard, Karin Russ
Affiliation: Collaborative on health and environment, University of Maryland
Objective: Changes in diet and activity patterns alone cannot explain the trends toward rising rates of metabolic disease at increasingly younger ages. The risk factors for metabolic disease are multifactorial, and include factors such as exposure to endocrine disrupting chemicals (EDCs) during early development.
Objective (500 characters). We review the epidemiological literature on early life (in utero through puberty) exposure to EDCs and metabolic outcomes in childhood.

NIEHS/EPA CEHCs: An Analysis of Neurodevelopmental Findings - Emily Szwiec, MPH
Authors: Emily Szwiec¹, Hayley Aja² Nica Louie²
Objective: Since 1998, the National Institute of Environmental Health Sciences (NIEHS) and EPA have funded the Children’s Centers program investing over $300m and resulting in 2400 publications. Analysis will allow for a more comprehensive understanding of the findings pertaining to children’s neurodevelopment. The analysis aims to synthesize research on environmental health risk factors for neurodevelopmental outcomes and identify common trends, research gaps, and study limitations.

Environment, methylation and ALL risk: a Mendelian randomization study - Jessica Ann Timms
Authors: Jessica A Timms¹, Caroline L Relton², Gordon Strathdee³, Judith Rankin¹, Jill A McKay¹
Affiliation: ¹Institute of Health & Society, Newcastle University, U.K., ²MRC Integrative Epidemiology Unit, School of Social and Community Medicine, University of Bristol, ³Northern Institute for Cancer Research, Newcastle University, U.K.
**Objective:** Mendelian randomization will be used to strengthen causal inference when considering the role of epigenetic mediators (e.g. DNA methylation) of environmental exposures. The amount of effect can be predicted using the joint effects of the genetic variant (G) (instrumental variable (IV)) on the modifiable exposure (E), and of the modifiable exposure (E) on outcome (O): \(G \cdot O / G \cdot E = O \cdot E\).

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**Levels of Metals in Nails of Children Living near Coal Burning Plants - Lindsay Koloff Tompkins, MS**

**Authors:** Lindsay Tompkins¹, Lonnie Sears¹, Carol Hanchette¹, Barbara Polivka¹, Guy Brock², Kristina Zierold¹

**Affiliation:** ¹University of Louisville, Louisville, Kentucky; ²The Ohio State University, Columbus, Ohio

**Objective:** Using community-based research methods, the objective of this study is to compare concentrations of metals found in nails of children living near coal burning power plants and coal ash storage sites to concentrations of metals found in unexposed individuals as reported in the literature.

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**Associations of Exposure to Lead Hazards Among NYC Residents - Talia Marie Torres**

**Authors:** Talia M. Torres¹, Leonell Torres-Pagán², Rafael Perez-Torres², Marlene Camacho-Rivera¹

**Affiliation:** ¹Sophie Davis School of Biomedical Education/CUNY School of Medicine, New York, NY, ²Center for Puerto Rican Studies, Hunter College, City University of New York

**Objective:** The objective of the study is to examine the contributions of sociodemographic, household, and neighborhood characteristics in exposure to potential lead hazards among New York City residents.

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**Association Between Organophosphate Pesticides and Children's Health - Yi-Ru Wang**

**Authors:** Yi-Ru Wang¹, Jia-Woei Hou¹, Ming-Sung Tsai², Jia-Huang Chang³, Mei-Lien Chen¹

**Affiliation:** ¹Institute of Environmental and Occupational Health Sciences, College of Medicine, National Yang-Ming University, Taiwan, ²Division of Obstetrics and Gynecology, Cathay General Hospital, Taiwan, ³Division of General Pediatrics, Cathay General Hospital, Taiwan

**Objective:** This study aimed to examine the association between the concentrations of urinary OPs metabolites and neurodevelopmental effects in children from 3 to 7 years old.

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**Partnering with community stakeholders to address health disparities - Haguerenesh Woldeyohannes**

**Authors:** Haguerenesh Woldeyohannes, Melanie Pearson, Nathan Mutic

**Affiliation:** Emory University- C-CHEM2 Project
Objective: C-CHEM2 project aims are focused on what might be critical, but as yet unstudied, environmental and biological influences of health disparities that negatively impact AA families in metro Atlanta. The Community Outreach and Translation Core (COTC) objective is effective translation of C-CHEM2 project discoveries into sustainable strategies to reduce environmental exposures that negatively impact the microbiome and subsequent fetal/infant neurodevelopment among African American women & infants.