Break the Cycle of Environmental Health Disparities in Vulnerable Children

A Leadership Development Program of

PEHSU
Southeast Pediatric Environmental Health Specialty Unit

EMORY University

isdd
INNOVATIVE SOLUTIONS FOR DISADVANTAGE & DISABILITY
Disclaimer

- The findings and conclusions in this presentation have not been formally disseminated by the Agency for Toxic Substances and Disease Registry (ATSDR) and should not be construed to represent an agency determination or policy.

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Children at most risk for health disparities

- Living in poverty
- From racial and ethnic minority groups
- Affected by drug and alcohol abuse
- Living with violence
- From homeless families
- Uninsured and/or without access to health, mental health, and dental care

Health Equity and Children's Rights *Pediatrics*; March 29, 2010;
Built Environment in Poor Communities

- Unsafe Neighborhoods due to: Traffic, Crime, Litter & Trash, Food Desert, Limited Green Space
  - 61% more likely to be Obese
- Older Houses in Poor Condition
  - 3.5x more likely to have lead toxicity
- Poor Indoor & Outdoor Air Quality
  - 2x more likely to have Asthma and
  - 3x more likely to die from Asthma
- Older Schools in Poor Condition & Poor Education
  - 50% less likely to graduate
  - 2x more likely to be unemployed
Smoking

- The effects of tobacco not only has a direct effect on the smoker and on the fetus,
- With long term health implications for the rest of that child’s life
- And for that child’s offspring as well
Cumulative risk

- Poverty
- Lead & other toxins
- Exposure to Tobacco Smoke
- Poor nutrition
- Stressed mother
- Insecurity & Anxiety
- Toxic Stress
- Unsafe neighborhood Poor Schools

Adapted From Lecture by Dr. Howard Frumkin
BREAK THE CYCLE

BREAK THE CYCLE OF ENVIRONMENTAL HEALTH DISPARITIES IN CHILDREN

A Project of:
Southeast Pediatric Environmental Health Specialty Unit
Innovative Solutions for Disadvantage and Disability
Sustainability Initiatives at Emory University
Goals

• Raise Awareness of Children's Environmental Health
• Raise Awareness of Environmental Health Disparities
• Cultivate Future Leaders
Requirements from Break the Cycle Students

- Project
- Mentor
- Presentation
- Publication
Impact of Housing on Body Size and Pubertal Timing
Closing Health Disparities Through a Multilevel Approach
Racial and SES Profiles in People Living Near Power Plants
Community Supports Lessen Health Disparities for Premature Infants
Mitigating Effects of Exposure to ETS on Development of Children
The Family Checkup to Improve Child Behaviors in the Home
Environment, Malnutrition and Teenage Mothers in Lusaka Zambia
Determinants of Access to Healthcare in Rural Georgia
Environment, Asthma, Poverty with African American Children in Fort Valley, GA
Endocrine Effects and Metal Exposure in Children of Agricultural Working Mothers in Thailand
Home Environment, Low Income and the Primary Care Medical Home
Student Survey:

Changes in Knowledge about Children’s Environmental Health

Before and After Participating in The Break the Cycle Program:

- A. None
- B. Minimally aware
- C. Moderately familiar
- D. Very familiar
- E. Expert

Response % Before
Response % After
Student Survey:

Changes in Knowledge about Environmental Health Disparities

- A. None
- B. Minimally Aware
- C. Moderately familiar
- D. Very Familiar
- E. Expert

Response % Before
Response % After
Student Survey:
Influence on Future Career

A. Very Significantly
B. Significantly
C. Somewhat
D. Minimally
E. None
To Date:
• 10 annual programs
• 9 states in USA, Latin America, Europe & Africa
• 93 students
• 27 university departments

Publications
• 8 international journal supplements
• 6 books