

# CLIMATE CHANGE AND VULNERABLE POPULATIONS

---

***Moderator:* Jerome Paulson, MD**

Professor Emeritus of Pediatrics and of Environmental & Occupational Health, George Washington University School of Medicine and Health Sciences and George Washington University Milken Institute School of Public Health

# Climate Associated Health Impacts: Children as a Vulnerable Population

Virginia Clinicians for Climate and Health  
February 10, 2017

Laura Anderko PhD RN

Professor & Scanlon Endowed Chair, Values Based Health Care  
Director, Mid-Atlantic Center for Children's Health and the Environment  
White House Champion of Change: Climate Change and Public Health



*GEORGETOWN UNIVERSITY*

# Acknowledgements

- This material was supported by the American Academy of Pediatrics (AAP) and funded (in part) by the cooperative agreement FAIN: 1U61TS000237-04 from the Agency for Toxic Substances and Disease Registry (ATSDR).
- The U.S. Environmental Protection Agency (EPA) supports the PEHSU by providing partial funding to ATSDR under Inter-Agency Agreement number DW-75-95877701. Neither EPA nor ATSDR endorse the purchase of any commercial products or services mentioned in PEHSU publications



# Region 3

## Pediatric Environmental Health Specialty Unit



<http://kidsandenvironment.georgetown.edu>  
[kidsandenvironment@georgetown.edu](mailto:kidsandenvironment@georgetown.edu)





INCREASING MAGNITUDES  
OF WARMING INCREASE  
THE LIKELIHOOD OF

---

**SEVERE AND  
PERVASIVE IMPACTS**





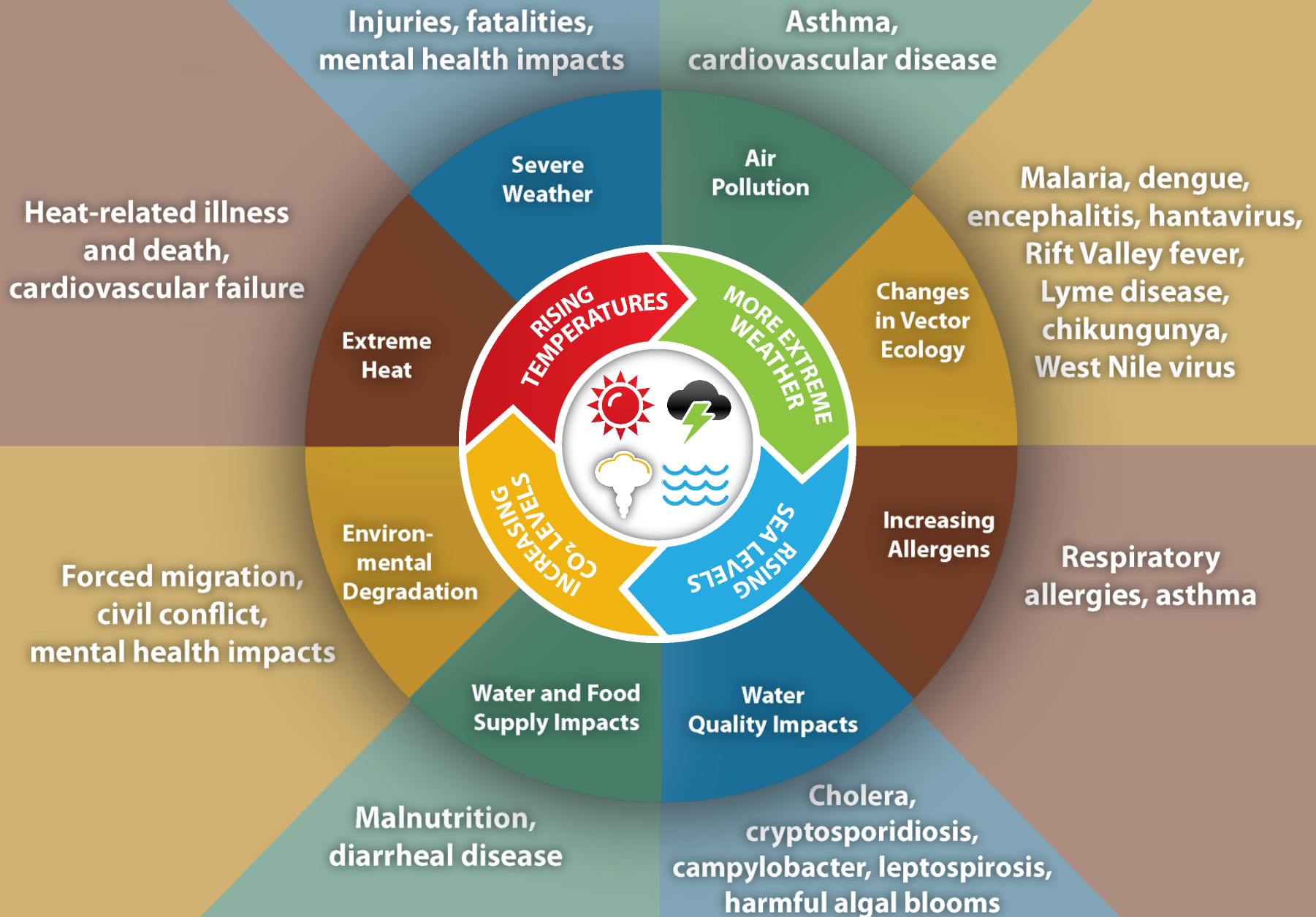
# Climate Change and Health

# Children are not little adults

- Drink more water per unit of body mass
- Eat more food per unit of body mass
- Breathe more air per unit of body mass
- Have longer “shelf-life”
- Developing organism with stages of vulnerability
- Differing metabolism



# Impact of Climate Change on Human Health



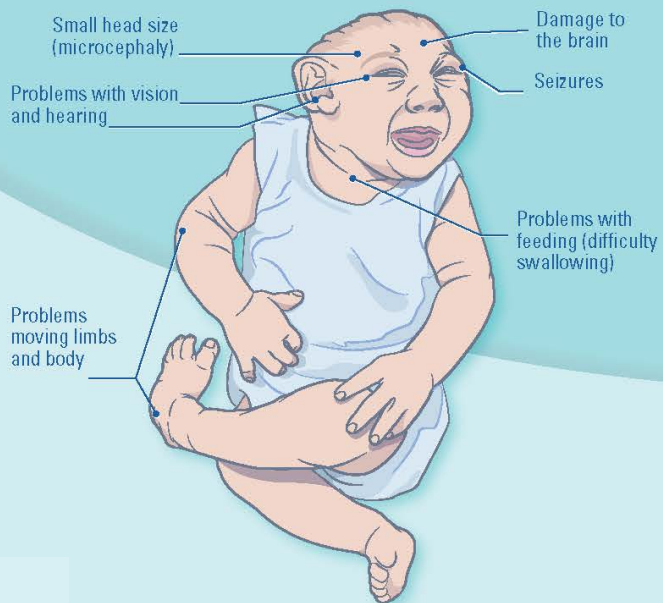


# Impact on Reproductive Health and Birth Outcomes





**Congenital Zika syndrome is a pattern of birth defects in babies infected with Zika during pregnancy**





# Impact on Children's Health









Thank You!



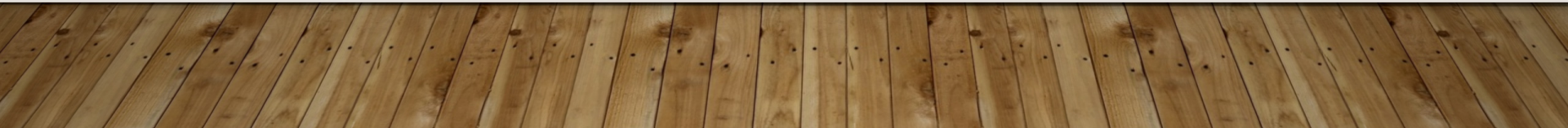
*GEORGETOWN UNIVERSITY*

# POPULATIONS VULNERABLE TO CLIMATE CHANGE

---

OLDER PEOPLE AND THOSE WITH CHRONIC ILLNESS  
OUTDOOR WORKERS

**JANET EDDY, MD**, MEDICAL DIRECTOR, BON SECOURS CARE-A-VAN









# AGE AND CHRONIC ILLNESS

---

- Aging impairs regulation of body temperature
- Vulnerability to the effects of climate change is increased by many factors
- Extreme heat events increase ED visits and hospital admissions
- Meds that increase risk
- Disability and immobility impede evacuation
- Interruption in medical treatment posed by disasters



# OUTDOOR WORKERS

---

- Brutal Virginia summer weather
- Workers at the mercy of their employers
- Heat tolerance varies in individuals
- Workers with medical/mental health conditions
- Ozone, FPM, allergen exposure
- Tick and mosquito exposure
- Disaster workers

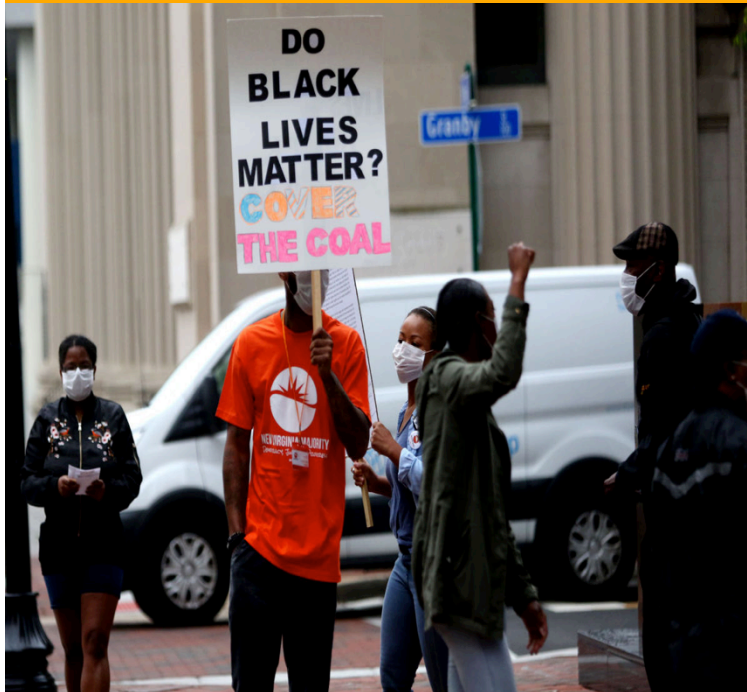


# MITIGATION STRATEGIES

---

- Increased access to air conditioning; cooling stations
- Increased green spaces
- OSHA campaign
- Educating our patients and communities

# Low-income Communities, Communities of Color and A Changing Climate



Contact Information:

Quan Williams, Policy Director

qwilliams@newvirginiamajority.org

1. What is New Virginia Majority
2. Our Strategies
3. Coalition Building
4. Environmental Justice is A Nervous Area of Climate Work
5. The Virginia Environmental Justice Collaborative
6. The Governor's Advisory Council on Environmental Justice ([EO73](#), 2017)
7. Campaign to address Coal Dust
8. HJ32: Coal Dust from Moving Trains
9. Resources: EPA's [NEJAC](#) & VEJC



# QUESTIONS?

---

#climatechangeshealth