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Series of scientific webinars that provide a forum for discourse on scientific issues.
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Fact sheets, journal publications, reports, and other resources for parents, community members, patients and healthcare professionals
Topics included:
Air Quality, Pesticides, Natural Disasters, BPA, Mold, Lead, Mercury

www.pehsu.net/nationalclassroom.html
Climate Change and Reproductive Health: What Providers Should Know and Do

Laura Anderko, PhD, RN, Georgetown University
Katie Huffling, MS, RN, CNM, Alliance of Nurses for Healthy Environments
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Learning Objectives

• Describe ways that climate impacts health
• Identify the most common impacts of climate changes on maternal health and birth outcomes
• List strategies and resources that health professionals can use to assist child-bearing women to reduce health risks from climate changes
An Overview: Climate Change and Health
Impact of Climate Change on Human Health

- **Injuries, fatalities, mental health impacts**
  - Heat-related illness and death, cardiovascular failure
  - Forced migration, civil conflict, mental health impacts
  - Malnutrition, diarrheal disease

- **Asthma, cardiovascular disease**
  - Air pollution
  - Changes in vector ecology
  - Respiratory allergies, asthma
  - Malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Lyme disease, chikungunya, West Nile virus

- **Severe weather**
  - Severe heat
  - More extreme weather
  - Extreme heat
  - Increasing allergens

- **Sea levels, CO2 levels**
  - Rising sea levels
  - Rising CO2 levels
  - Water and food supply impacts
  - Water quality impacts
  - Cholera, cryptosporidiosis, campylobacter, leptospirosis, harmful algal blooms
Direct Impacts on Maternal Health
Air Pollution: Respiratory Diseases
Expanding Geographical Ranges: Vector-Borne Diseases
Heat, Disasters: Food and Water-Borne Diseases
Changes in Seasons, Droughts, & Flooding: Nutritional Impacts
Indirect Impacts on Maternal Health
Extreme Weather Events: Forced Migration, Infectious Diseases, Lack of Access to Care
Mental Health
Violence
Exacerbation in Poverty
Impact on Birth Outcomes
Birth Weight
Pre-term, Sudden Infant Death
Congenital Cataracts
Practice Implications
Air pollution: Heat and Wildfires

Vector-borne diseases

In general, adult ticks are approximately the size of a sesame seed and nymphal ticks are approximately the size of a poppy seed.
Food and water
Extreme weather events
Resources
Climate Change and the Health of Pregnant Women

Understanding the threats that climate change poses to human health can help us work together to lower risks and be prepared. Climate change threatens human health, including mental health, and access to clean air, safe drinking water, nutritious food, and shelter. Everyone is affected.

Climate change will also cause extreme heat events to become more frequent and severe, which can lead to dehydration and renal (kidney) failure.
The Climate Is Changing
Take Simple Steps to Protect Children's Health

**keep cool in the heat**
- Urge children and pregnant women to drink water more often than usual to prevent dehydration.
- Dress children in loose, lightweight, light-colored clothing.
- Spend time in air-conditioned places.
- Know the warning signs of heat exhaustion and heat stroke; see www.cdc.gov/stormsheat/warning.html.

**guard against Lyme disease**
- Apply insect repellent, according to directions, and reapply as needed.
- Dress children in protective clothing, if possible.
- Check children for ticks after they have been in or near woods and fields.
- Have children bathe when they come indoors after being in or near woods and fields.
- If you find a tick on your child, remove it as soon as possible and clean the bite area. If your child develops a rash, fever, or other flu-like symptoms within several weeks of a tick bite, check with your child’s healthcare provider.
- For more information, see www.cdc.gov/lyme.

**know your air quality**
- List for air quality alerts during weather broadcasts or check air-quality forecasts at www.epa.gov.
- Check the pollen count in your area. If your child has allergies, limit outdoor activities on days when the pollen count is high.
- During bad air quality days, keep windows and doors closed so indoor air and outdoor air do not mix. If you can, run an air conditioner.

**When air quality is unhealthy, plan outdoor activities in the morning.**
- If your child has asthma, limit outdoor activity on poor air quality days. Talk to your child’s healthcare provider to come up with a plan to managing asthma symptoms and treating asthma.
- If you spot mold, clean and dry the surface according to guidelines at www.epa.gov/mold/cleaning-guidelines.html.

**stay alert for storms and flooding**
- Make a basic emergency supply kit. See http://emergency.cdc.gov/preparedness/wellness/disasters/.
- Plan an evacuation route and family meeting place.
- Do not let children play in or near flooded areas.
- If your children were exposed to flood waters, monitor them for diarrhea.
- After a severe storm, check your child’s mental health, school performance, and sleeping and eating patterns. Get help if needed.

**prevent mosquito bites**
- Use insect repellent, according to directions, and reapply as needed.
- Dress children in protective clothing—long-sleeved shirts, pants, and socks—when weather permits.
- Use screens in windows at home.
- Eliminate places for mosquitoes to live and breed, such as standing water.
- For more information, see www.cdc.gov/
## How Climate Change Affects Children's Health

<table>
<thead>
<tr>
<th>Climate Change Impacts</th>
<th>Health Effects on Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases in ground level ozone (smog) and other air pollution</td>
<td>Asthma exacerbations; interferes with normal lung development; increases allergic rhinitis, bronchitis</td>
</tr>
<tr>
<td>Increases in airborne allergens such as pollen</td>
<td>Asthma exacerbations; increases allergic rhinitis, bronchitis</td>
</tr>
<tr>
<td>Heat waves</td>
<td>Heat stress, heat stroke, reduced school performance</td>
</tr>
<tr>
<td>Extreme weather events (rain, hurricane, tornado, flooding)</td>
<td>Injuries, drowning</td>
</tr>
<tr>
<td>Droughts, floods, increased mean temperature</td>
<td>Vector-borne diseases</td>
</tr>
<tr>
<td>Sicie level rise</td>
<td>Injuries, drowning, water and soil salination, ecosystem and economic disruption</td>
</tr>
<tr>
<td>Drought, ecosystem migrants</td>
<td>Food and water shortages, malnutrition</td>
</tr>
<tr>
<td>Climate change generally</td>
<td>Mental health impacts</td>
</tr>
</tbody>
</table>

Adapted from CDC Policy on Climate Change and Public Health, [https://www.cdc.gov/climatechange/policy/](https://www.cdc.gov/climatechange/policy/)

## Resources for Healthcare Professionals on Climate Change and Clinical Care

Public Health Perspectives

Building Resilience Against Climate Effects

01. Forecasting Climate Impacts and Assessing Vulnerabilities
02. Projecting the Disease Burden
03. Assessing Public Health Interventions
04. Developing and Implementing a Climate and Health Adaptation Plan
05. Evaluating Impact and Improving Quality of Activities

BRACE
Building Resilience Against Climate Effects
Resources

Georgetown Climate Center: http://www.georgetownclimate.org

ACOG Position Statement Climate Change and Women’s Health: http://www.acog.org/Resources-And-Publications/Position-Statements/Climate-Change-and-Womens-Health

Health Care Without Harm: https://noharm.org

ecoAmerica: http://ecoamerica.org

Clean Power Plan: https://www.epa.gov/cleanpowerplan

Resources

- CDC’s BRACE framework and guidance documents
  http://www.cdc.gov/climateandhealth/default.htm
- Third National Climate Assessment
- USGCRP Climate Health Assessment
  https://health2016.globalchange.gov/
- EPA Climate Change Health Impacts
  https://www3.epa.gov/climatechange/impacts/health.html
Thank you! Questions?
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