

Climate Change and Health

Objectives

- Discuss the impact of climate change on women and children
- Identify direct and indirect mechanisms affecting maternal child health
- Review mechanisms of climate change and related air pollution on the immune system leading to allergic disease and asthma
- Summarize epidemiology of asthma and allergic disease in relation to climate change

Content Outline

1. Climate and Environmental Change Affecting Reproductive Health
 - A. Vulnerable populations
 1. Biological factors
 2. Geographic factors
 3. Demographic factors
 4. Socioeconomic/Sociopolitical factors
 - B. Reproduction Stress Resulting from Climate Change Effects
 1. Sexual maturation
 2. Fertility
 3. Pregnancy outcomes
 4. Lactation
 5. Menopause
 - C. Barriers to health maintenance and promotion
2. Climate Change and Air Pollution As Triggers for Allergic Disease and Asthma
 - A. Environmental shifts caused by fossil fuel usage
 - B. Immune mechanisms underlying environmental effects on allergies and asthma
 - C. Air pollution
 - D. Thunderstorms and flooding
 - E. Heat stress
 - F. Water and food insecurity

Reading Material Resources

Module WB2531: Climate Change and Health is based on the resources listed below. A copy of the resources is included with the module.

Climate and Environmental Change: A Generation at Risk, Chalupka, et al., *MCN*, July/August 2023, 181-187

Mechanisms of climate change and related air pollution on the immune system leading to allergic disease and asthma, Sampath, et al., *Seminars in Immunology*, 67, (2023), 1-9