

Potential Impacts Of Climate Change On Kidney Disease, Mental Health, & Underserved Populations

The Year 2023 Was Recognized As¹:

Climate change with its extreme weather, heat exposures, and air pollution can increase diseases and increase number of deaths for patients with chronic medical conditions.²



The **warmest** year in recorded history



Record high for **greenhouse gas** emissions



Record high **sea level** rise



Record low **Antarctic ice**



A year with more **severe weather** and resulting destruction to some communities



CLIMATE CHANGE & KIDNEY DISEASE



Climate change and increased heat wave exposures have affected increased numbers of individuals globally.³



Heat Waves & Heatstroke Can Cause:

- Acute kidney injury related to exercise-induced heatstroke³
- Electrolyte abnormalities such as low sodium and low potassium levels can occur from elimination through urination or sweating³
- Kidney stones and urinary tract infections due to underhydration and low urine volumes³
- Increased emergency department visits and hospital admissions⁴

Injuring your kidneys multiple times can increase the risk of developing chronic kidney disease³

CLIMATE CHANGE & MENTAL HEALTH



Potential Mental Health Effects Due To Climate Change⁵:

- Greater stress including stress-related disorders
- Anxiety
- Despair
- Depression
- Association with self-harm and increased suicide rates



Environmentally Forced Migration:

- May disrupt social ties that normally buffer stressors related to prolonged and acute climate events.⁶
- May lead to "eco-anxiety," a term created by Glenn Albrecht, which describes chronic fear of environmental doom and feelings of anxiety, or grief related to climate change and worry about the future and expected negative changes.^{6,7}



Trauma Exposure During Disasters & Pandemics:

The **primary mental health impact from environmental disasters can include⁶:**

- Impaired sleep
- Decreased mental health
- Interference in cognitive functioning including negatively affecting memory, executive function, and the ability to concentrate
- Increased high-risk behaviors including domestic violence, alcoholism, and substance abuse

Secondary effects on mental health may be due to environmental disruptions such as⁶:

- Physical and social infrastructure damage
- Food/water shortage
- Conflict
- Displacement
- Decreased physical health

UNDERSERVED POPULATIONS

How Does Climate Change Impact Underserved Populations & Health Equity?

Marginalized and underserved communities are vulnerable to health risks secondary to climate change such as poor air quality, increased temperatures, and extreme weather.⁸



Image Source: The Fourth National Climate Assessment⁹

Communities Of Color

Some communities in risk-prone areas face cumulative exposure to multiple pollutants. Adaptation plans can improve health care access and help to address social inequities.

Children

Heat stroke and illness are a greater threat to children than adults. Monitoring their exertion and hydration can lessen this risk.

Older Adults

Extreme events that cause power outages or require evacuation can place older adults in danger. Proper emergency communication and checking in on seniors can save lives.

Low-Income Communities

Flooding and crowded shelter conditions can lead to physical and mental illness. Disaster management plans can help those with limited resources to be resilient.

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