

# WELLBEING

## CLIMATE & HEALTH

### OVERVIEW

While the physical impacts of climate change, such as damage to city infrastructure or disruption in food production, are relatively easy to grasp, the impacts of climate change go well beyond the physical structures and systems around us. Climate change is also significantly impacting human wellbeing, a more intangible and hard to measure consequence.

### CLIMATE CHANGE IN MINNESOTA

The rise in greenhouse gases is leading to increases in temperature and changes in precipitation. These changes are causing changes in air quality, weather patterns, water quality and quantity, and ecosystems.

**AIR CHANGES:** Specific air pollutants that are likely to be increased by climate change and result in negative health impacts include particulate matter, ozone, pollen, and mold.

**WEATHER CHANGES:** Extreme heat events in Minnesota are already occurring and expected to become more common, more severe, and longer-lasting.

**WATER CHANGES:** Climate change may impact Minnesota's water quality and quantity by increasing precipitation, decreasing precipitation, and increasing temperatures of lakes and streams.

**ECOSYSTEM CHANGES:** Warmer, wetter climate trends may support the spread of tick-borne diseases.

### AT-RISK POPULATIONS

**CHILDREN:**

Children are at particular risk for distress and anxiety in the aftermath of an extreme event.

**We are only as resilient as our most vulnerable citizens**

**WOMEN:** Women have a higher prevalence of Post-Traumatic Stress Disorder (PTSD) and other mental health disorders after disasters than men.

**ELDERLY:** Elderly tend to have higher rates of untreated depression and physical ailments that contribute to their overall vulnerability.

**COMMUNITIES OF COLOR, IMMIGRANTS, LIMITED ENGLISH:** Socioeconomic and educational factors, limited transportation, limited access to health education, and social isolation related to language may inhibit people's ability to prepare for and respond to climate-related health risks.

**HOMELESS:** A combination of risk factors make people who are experiencing homelessness more at risk to the negative impacts of climate change.

**OCCUPATIONAL EXPOSURE:** Healthcare and public safety workers are at increased risk for short-term and long-term mental health consequences.



## HEALTH OUTCOMES

### DISTRESS

**Anxiety and depression:** High levels of distress and anxiety are often prevalent among people who have recently experienced an acute trauma and can include reactions like feeling overwhelmed, isolated, and worried about the future.

**Threat and perception:** The threat and perception of climate change can negatively impact a person's level of distress and state of well being.

**Drought** is a unique type of disaster. Drought conditions disrupt livelihoods and has been linked to an increase of suicide among male farmers.



### RELATIONSHIP STRAIN

- Decreased community cohesion
- Disrupted sense of continuity and belonging
- Increased violence and crime
- Increased social instability
- Increased interpersonal aggression and domestic abuse

### ALCOHOL & SUBSTANCE ABUSE

Climate change can lead to increases in high-risk coping behaviors.



### POST-TRAUMATIC STRESS DISORDER

Wellbeing impacts of climate change, especially from extreme weather events, can lead to serious mental health consequences, such as Post-Traumatic Stress Disorder.

**What is solastalgia?**  
**Solastalgia** is characterized by a sense of distress or emotional pain felt when someone's homeland is diminished or destroyed.

## ACTION STEPS TO PROTECT OUR HEALTH & ENVIRONMENT

- 1. Use less energy** — install energy efficient appliances and support renewable energy (e.g., solar, wind).
- 2. Burn less gas** — walk, bike, take transit, carpool, or telecommute at least twice a week.
- 3. Lower your “food print”** — eat less meat per week, buy locally-grown food, and consider growing some of your own food.

## MEANINGFUL ACTION STEPS

- 1. Integrate mental health and wellbeing considerations**  
*Public health plays a critical role in protecting the health of Minnesotans. Examine planning processes and response activities to pinpoint feasible opportunities to integrate mental health and wellbeing support.*
- 2. Learn more to help more**  
*Public health departments can increase their effectiveness in preventing long-term traumatic stress reactions by becoming more informed as professionals. This can include prioritizing staff training in psychological and mental health first aid.*
- 3. Strengthen networks and build community**  
*Public health professionals can be part of building community-level networks to create the resilience necessary for individuals and communities to successfully prepare for and cope with the potential psychological impacts of climate change.*
- 4. Communicate with intention**  
*All individuals have perspectives that are uniquely their own. Culture, ideologies, and historical experiences all impact the way we see the world. Acknowledge the opinions of others and take into account the experiences that shape their responses.*
- 5. Support recovery and resilience**  
*Promote positive mental health impacts by encouraging climate action and advocating for a system of recovery and resilience.*
- 6. Focus on equity**  
*Taking a health equity approach means matching resources and supports against need to facilitate the best outcome for all.*