Climate change is the challenge of our generation. While climate change affects all humans, research and communications have generally focused on physical impacts to the planet. Other impacts such as the societal and psychological consequences, have received much less attention and research.

As a result of the looming threat of climate change, an extreme weather event, or post-disaster recovery mental health is impacted and these occurrences can lead to anxiety, depression, secondary trauma, and other psychological conditions.

For Utah residents, there are many climate change related hazards that one must prepare for. However, impacts of climate change on individuals and communities will vary widely. We hope that this important project can normalize connecting climate change to mental health, thus helping people learn resilience and increase their capacity to cope with uncertainty and trauma caused by climate change.

Intro

A Message of Hope

A 2020 study found that communicating climate change in a doomsday manner is more likely to engage people who were not concerned with climate change. For those who have consistently acknowledged climate change as a risk, these pessimistic narratives can make it seem that there is no hope.

Over the past few years there has been progress in addressing climate change. It is important to acknowledge this progress because the battle against climate change is not lost. Here are some important updates:

- For the 5th year in a row, 2019 experienced more renewable installations than coal, gas, and nuclear combined on a global scale.
- 150 Cities across the US have pledged to run on 100% renewable electricity by 2035.
- Multiple cities in Utah, including Salt Lake City, are aiming to run on net-100% renewables by 2040 in collaboration with current energy providers.
- Additionally, almost 200 large companies (3M, Apple, Nike) have pledged to go 100% renewable by 2050 or in most cases, much sooner.

There are two ways climate change can affect mental health. First, people experience direct exposure to the effects of climate change. The other way is indirect exposure - such as watching a disaster unfold from afar.

Action now increases the likelihood that the negative effects of climate change are lessened. With the United States rejoining the Paris Climate Agreement, steps are being taken to continue addressing climate change. There is work to be done but this work should not distract from the important progress that has been made.
Nothing can replace seeking professional care. If at any point your mental health is inhibiting your ability to function, it is time to reach out to a licensed professional. Below, find ways and resources to improve your mental health:

**Natural Disasters**
Natural disasters such as large earthquakes, tornadoes, and landslides are uncommon in Utah, but are possible. There is a 1 in 4 chance of a large earthquake in the Wasatch Front in the next 50 years. Studies have found exposure to natural hazards can increase PTSD, anxiety, and stress. When natural disasters happen, it is important to stay informed, be optimistic, and have a plan in place; knowing someone’s contact information outside of the region and having a preparedness kit.

**Wildfires**
On average, Utah experiences around 1,300 wildfires a year, with trends showing increased fire activity in recent years. Studies have found exposure to wildfire events can increase PTSD, somatization, depression, anxiety, and stress. When wildfire events happen, it is best to stay informed and have plans if you would face evacuation; like a place to stay and items you need (people and pet supplies, prescriptions, papers, personal needs, and priceless items).

**Inversions**
Wintertime inversions commonly contribute to deteriorated air quality. Utah experiences numerous days a year that fail to meet national air quality standards. Recent studies have found that long term exposure to bad air quality can increase the likelihood of experiencing depression, anxiety, and stress. In order to prepare for bad air quality days, consider alternative transportation and practice self-care.

**Heat Waves + Drought**
Climate data shows that Salt Lake City will slowly shift to a climate of modern day Las Vegas by the end of the century. As of April, 2021, 100% of the state is in the moderate drought category, with 57% of the state in the highest category of "exceptional drought." Studies show that severe drought and longstanding drought conditions can lead to stress, anxiety, and depression. In order to mitigate the adverse mental strain from these events, planning for the future, positive thinking, acceptance and reframing of the problem, and utilizing social support have all been proven to help.

**Blizzards + Extreme Cold**
Some studies have shown that cold temperatures may have an immediate impact on mental health. In cases where severe weather events (such as blizzards) occur, research has shown this can have a significant negative effect on mental health. In many parts of Utah minimum temperatures will warm faster than maximum temperatures. Furthermore it is expected there will be a decrease in winter storm risk at low elevations as well as an increase in winter storm risk at high elevations.

**Resources and Preparedness**
One way to address feeling anxious or overwhelmed is to focus on aspects of emergencies that can be controlled. Being prepared for emergency situations can lessen feelings of anxiety. The University of Utah Department of Public Safety (DPS) has comprehensive resources and training that can assist with emergency preparedness.

From the standpoint of hazard resiliency, a good tool to have is an emergency preparedness kit. Check out the links below to see what to include in a short-term emergency kit, as well as a long-term preparedness kit.

**PHONE CONTACTS**
- Emergencies: 911
- SLC Police Non-Emergency: (801) 799.3000
- Suicide Hotline: (800) 273.8255
- Substance Abuse Hotline: (800) 662.4357
- Recorded Weather Forecasts (801) 524.3057
- Disaster Distress Hotline: (800) 985.5990
- University of Utah Crisis Line: (801) 587.3000

**IMPORTANT LINKS**
- Woobot: Mental Health
- SafeUT App
- Bennion Center
- NOAA SLC
- Be Ready Utah
- U Counseling Center
- Mindfulness Center

**Ways to Cope**
Nothing can replace seeking professional care. If at any point your mental health is inhibiting your ability to function, it is time to reach out to a licensed professional. Below, find ways and resources to improve your mental health:

- **Breathing**: The 4-7-8 breathing technique aims to reduce anxiety, anger, and help you sleep. Start by breathing in for 4 seconds, holding that breath in for 7 seconds, and exhaling for 8 seconds.
- **Communicating**: Communicating how you feel can be one way to address feeling anxious. Practice communicating your feelings by either keeping a journal or talking with a trusted family member or friend.
- **Movement**: Body movement and exercise have well documented physical and mental benefits. Thirty minutes 3 days a week is beneficial. Start with enjoyable activities whenever you have energy whether indoors or outdoors. There are plenty of free videos and routines on the internet.
- **Mindfulness**: Mindfulness, which focuses on self care and understanding your emotions, utilizes many of the techniques detailed here. To learn techniques for improving mindfulness, register for this free course: https://mindfulnesscenter.utah.
- **Comfort**: When you sense yourself growing increasingly anxious, engaging in a routine that provides you comfort can help. People find comfort in many things such as: reading, limiting news intake, or hanging out with a pet.
- **Get Involved**: You can take action and improve the climate by volunteering on sustainable initiatives. The University of Utah Bennion Center organizes sustainability focused volunteer projects such as planting trees: https://bennioncenter.org/.