



#ClimateChangesHealth

# Southern Great Plains CLIMATE AND HEALTH

## BACKGROUND

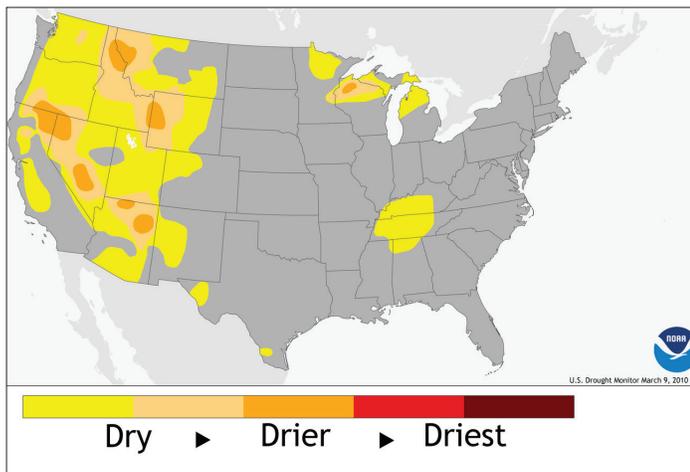
Burning fossil fuels, such as coal and gas, releases carbon dioxide. CO<sub>2</sub> builds up in the atmosphere and causes Earth's temperatures to rise. This extra, trapped heat disrupts many of the interconnected systems in our environment, posing risks to human health. Some impacts of climate change are already being felt throughout the United States. We need to safeguard our communities by protecting people's health from the effects of climate change.

## ISSUE SUMMARIES

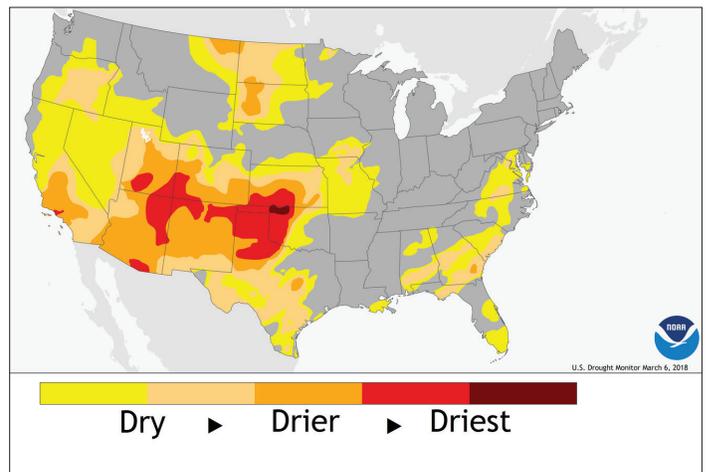
### DROUGHT AND WILDFIRES

Droughts increase the likelihood of health hazards like wildfires, dust storms, extreme heat events, flash floods and degraded air and water quality. Drought threatens water supplies and ecosystems, contributing to increased food prices that disproportionately affect low-income individuals. Exposure to wildfire smoke and dust storms increases respiratory and cardiovascular hospitalizations, asthma, bronchitis, chronic obstructive pulmonary disease and medical visits for lung illnesses and respiratory infections.

#### SOUTHERN GREAT PLAINS DROUGHT, 2010



#### SOUTHERN GREAT PLAINS DROUGHT, 2018



Source: Stanford University: The Bill Lane Center for the American West

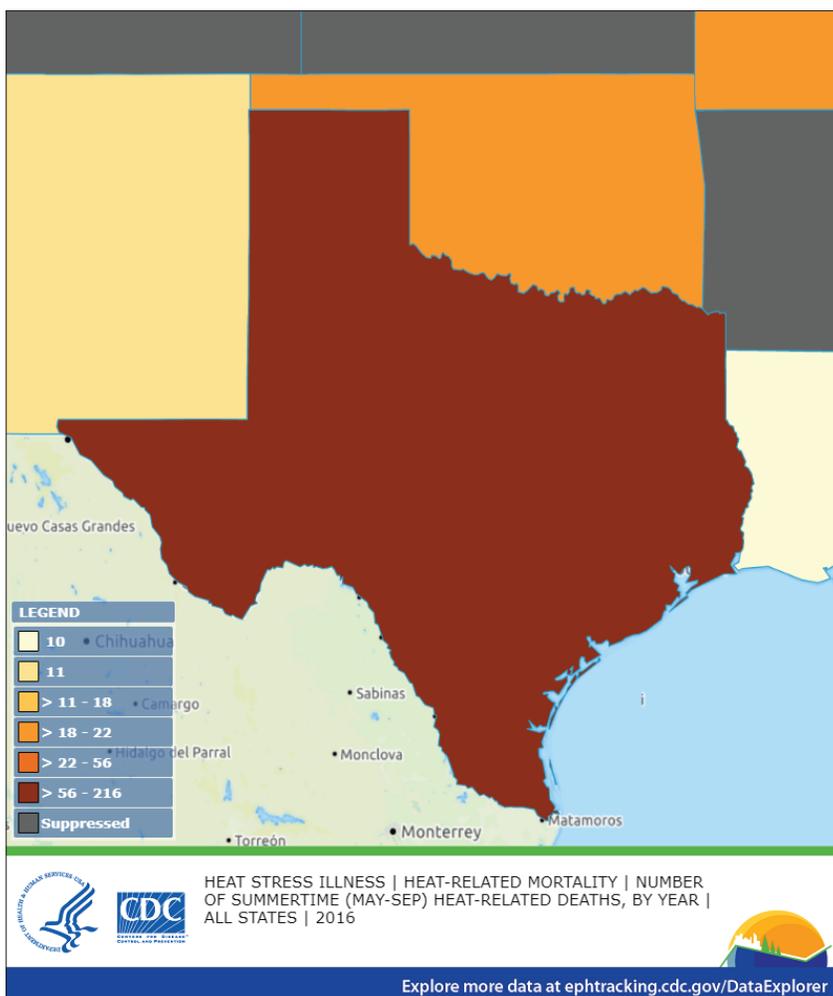
### FLOODING AND WATER QUALITY

Heavy rain, worsened by climate change, contributes to severe flooding and sewer overflows. Floodwaters can be contaminated by agricultural waste, chemicals and raw sewage that can carry harmful bacteria, viruses and parasites. Flooding and poor water quality can lead to injury and illness.

## EXTREME HEAT

Extreme heat leads to increased hospitalizations and, sometimes, fatal health events. Children, the elderly, people with chronic diseases, low-income populations and outdoor workers are at the highest risk for heat-related illnesses. Extreme heat is also linked to increased aggression, raising the incidence of assaults, murders and suicides.

### NUMBER OF SUMMERTIME HEAT-RELATED DEATHS IN 2016



Source: The Centers for Disease Control and Prevention

## FAST FACTS

**Climate change increases the likelihood and severity of storms like Hurricane Harvey.**



**Harvey hit Texas and Louisiana in 2017**, causing skin and gastrointestinal infections due to waste water overflow, mass evacuations and even death.

**In Oklahoma, temperatures are projected to increase by between 3.6 and 5.1°F within decades**, leading to increases in heat-related illnesses and death.



**Climate change is accelerating the declining water level in the High Plains Aquifer**, threatening irrigation and drinking water supplies.



**Since 2000, the longest duration of drought in Texas lasted 271 weeks from 2010–2015; 87.99% of Texas land was affected**, threatening water access and food security.

