

Six U.S. Case Studies, 2002-2009, Resulted in More Than \$14 Billion in Climate-Related Health Costs.

During the Red River and associated floods, two deaths, 263 emergency room visits, and an estimated 3,000 outpatient visits resulted in nearly \$20.4 million in health-related costs. Seasonal river flooding will increasingly affect many areas of the country, resulting in more injuries and deaths. Increased heavy downpours are projected from climate change as temperatures rise, raising levels of both evaporation and precipitation in many areas.



SMOG POLLUTION, NATIONWIDE, 2002

Across the U.S. in 2002, nearly 288 million Americans were exposed to ozone smog levels above the health-based standard, which was then 80 ppb. This exposure hastened death for 795 people, and caused 4,150 hospitalizations and more than 365,000 outpatient visits, at a cost of \$6.5 billion. Smog levels are anticipated to rise in the coming years, in the absence of strategies to reduce precursor emissions, because as climate change increases temperatures, ozone-forming chemical reactions also increase.

FLOODING, NORTH DAKOTA, 2009



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HURRICANES, FLORIDA, 2004

Four major hurricanes caused 144 premature deaths, nearly 2,200 hospitalizations, 2,600 emergency visits, and \$1.4 billion in health-related costs. Climate change is projected to increase the intensity of hurricanes, as sea surface temperature rise in the North Atlantic and provide more energy to drive storm systems. Some climate models project a doubling in the most intense hurricanes (Category 4 and 5) by late in this century.<sup>5</sup>

WEST NILE VIRUS, LOUISIANA, 2002



An outbreak of West Nile Virus in Louisiana in 2002 resulted in an estimated 24 premature deaths, 204 hospitalizations, and nearly 5,800 outpatient visits. Health-related costs totaled \$207 million. Mosquito-borne diseases are expected to emerge and spread into more northern climates as temperatures increase and create more habitable environments for mosquitoes.

HEAT WAVE, CALIFORNIA, 2006



WILDFIRES, SOUTHERN CALIFORNIA, 2003

These fires burned more than 736,000 acres and resulted in 69 deaths, 778 hospitalizations, and more than 47,600 outpatient visits. Together, this resulted in health-related costs exceeding \$578 million. Conditions conducive to wildfires, including drought and extreme heat, are expected to worsen in many parts of the country due to climate change.



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