

# Impacts of Climate Change on Human Health and Associated Research Needs

A changing climate impacts a range of factors that can affect health.

Research is needed to better understand: complex health outcomes, prevention measures, and intervention actions that can save lives around the world.

#### CHANGES IN CLIMATE



Increased global temperature



Extreme weather and disasters



Precipitation extremes



Sea level rise



Changes in land use and growing seasons

## EFFECTS OF CLIMATE CHANGE



Extreme heat



Air and water pollution



Reduced food and water quality



Changes in infectious diseases and vector transmissions



Increasing allergens

### HEALTH IMPACTS



Heat related illness



Cardiovascular disease, stroke, and other chronic conditions



Injuries and death



Mental and neurological disorders



Zoonotic, vector- and water- borne diseases



Respiratory diseases and asthma

### INTERVENTIONS & STRATEGIES



Early warning and preparedness



Prevention or reduction of disease, illness and injury



Community engagement



Education and awareness raising



Adoption and integration

#### SOCIAL, BEHAVIORAL, AND ENVIRONMENTAL DETERMINANTS OF HEALTH



Access to Healthcare



Diversity, Equity, Inclusion, and Accessibility



Poverty & Housing



Immigration/ Migration



Environmental Exposures



Infrastructure



Geography

#### **EXAMPLES OF NEEDED RESEARCH**



What are the new and emerging health risks from climate change?



Who is most at risk?



What health interventions are effective?



Can we predict future health outcomes from climate models?



What health benefits or costs come with climate actions?



How can disaster warning systems best save lives?



How can health care systems prepare for challenges to providing adequate care?



How can communities best adapt to a changing climate?