

Preparing Public Health for Climate Change:

Essential Steps in Adaptation

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IPCC Projections

- It is VERY LIKELY that heat waves will be more intense, more frequent, and longer lasting.
- Intensity of precipitation events will increase, particularly in tropical areas. Greater risk of drought in some areas.
- Sea level is projected to rise with substantial geographic variability.
- Snow cover and sea ice will decrease.

Impacts of Climate Change

- Extreme Heat Events
- Extreme Precipitation
- Severe Storms
- Vector-borne Disease
- Air Pollution
- Sea Level Rise



Extreme Heat Events

- Biggest natural disaster killer in the US
- Directly tied to climate change
- IPCC – very likely to see increases in US
- Elderly, poor, isolated most vulnerable



Extreme Precipitation

- Floods – public health nightmare
 - Displaced populations
 - Water contamination
 - Vector-borne disease
 - Molds
 - Infrastructure damage



Severe Storms

- More intense hurricanes may increase in frequency
- Deaths and injuries by trauma and drowning
- Health impacts similar to flooding



Vector-borne Diseases

- Climate change (temperature and precipitation) will alter the range of diseases such as malaria, dengue, Lyme, and West Nile, among others.
- New populations will have little resistance or immunity.
- Some models show an increase of malaria prevalence by 50 to 80 million

Air Pollution

- Possible increase in ground level ozone
- Possible increase in particulate matter
- Aeroallergens
 - Earlier onset of spring pollen season (happening)
 - Longer season (happening)
 - Greater production (T and CO₂)



Adaptation for Public Health Overarching Concepts

- Applied Science
- Multi-disciplinary (open tent)
- Prioritization
- Vulnerability
- Open and Transparent Process
- Communication
- Politics

Public Health Adaptation Plan

- Impact and Vulnerability Assessment
- Current Status Assessment
- Develop and Initiate Plan
- Evaluate and Adjust



CDC's BRACE Framework

- Building Resistance Against Climate Effects
 - Identifying Impacts and Vulnerabilities
 - Projecting additional disease burden
 - Assessing current and future interventions
 - Develop and implement an adaptation plan
 - Evaluate process and interventions
- 16 states and 2 cities participating in Climate Ready Program (www.cdc.gov/climateandhealth)

Summary

- Climate Change is a reality
- Climate Change has important public health consequences
- People least able to cope are the most vulnerable
- Public health authorities must prepare for climate change impacts now
- Developing an Adaptation Plan is a critical initial step

Questions

