Effect of Climate Change on Human Health.

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Introduction

Climate and Climate change have always play influencing part in human wellbeing and other living beings. Climate itself is the weather conditions prevailing in an area in general over a long period. Some of the meteorological variables that are measured are Temperature, Precipitation, Humidity, Atmospheric pressure and Sunlight etc. In a broader sense, Climate is the state of the components of the climate system which includes the Ocean and Ices on earth.

Climate Change on the other hand is the variation in global or regional climates overtimes. It reflects changes in the variability or average state of the atmosphere over a time scale ranging decades to millions of years. These variation changes may be caused by processes internal to the earth or external forces (sunlight intensity) and recently by human activities.

In recent usage, the term climate change often refers only to changes in the modern climate, including the rise in average surface temperature (global warming). The fig1 shows major meteorological variables influencing climate change.

Fig1: Climate distribution in USA showing Global Warming
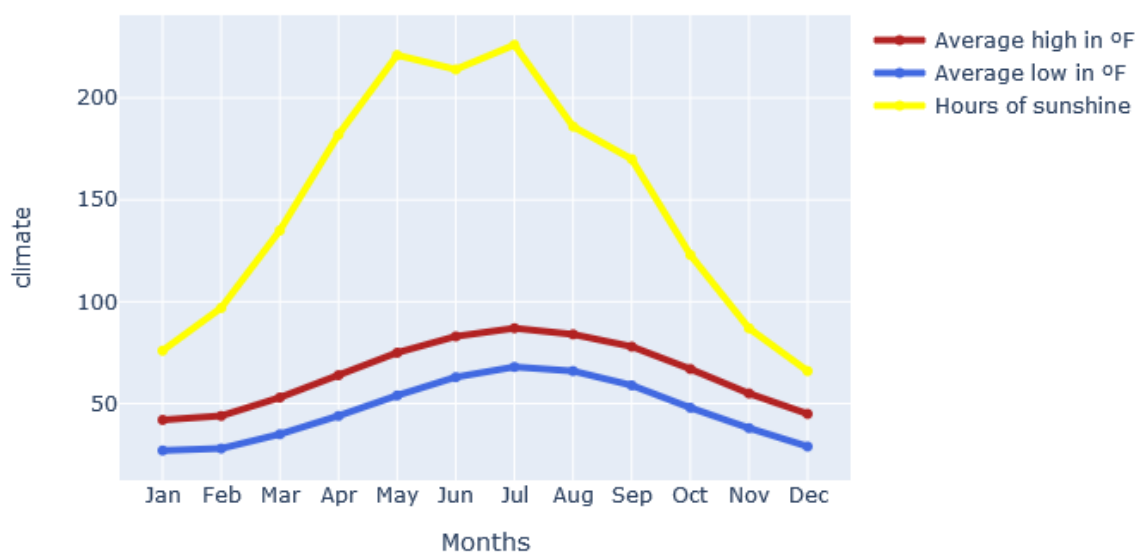
Climate change has resulted in intensifying of existing human health treat and new emerging ones. The major way climate change affected human health is through the disruption of physical, biological, ecological and mental system. This report will focus on the United State of America (USA). However, the major health effect of climate change disruption in the USA includes mental problem, injuries, respiratory and cardiovascular disease, water and food-borne disease and death.

Mental Health and Stress-Related Disease

Mental illness is one of the major causes of suffering in USA and extreme weather condition can affect mental health in many ways. Research shows that many people with no history of mental illness and those at risk get mental problem following disasters. Several people were being known to develop high levels of post-traumatic stress disorder and anxiety among people affected by Hurricane, floods, heatwaves and wildfires.[1]

Fig2:Monthly Distribution of Disasters that contributes to Mental Illness in 20:
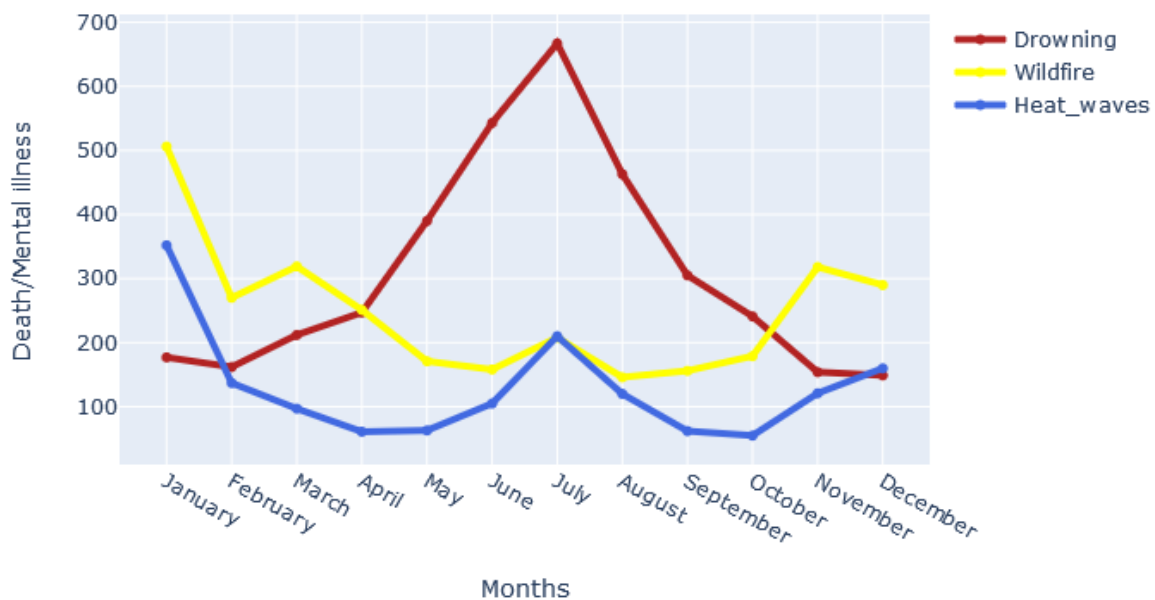
The demonstration of the illness results in stress, anxiety, depression, grief, sense of loss and substance abuse.

Heat-Related Death

Extreme heat events have long threatened public health in USA, many cities including Chicago, St Louis Philadelphia have suffered dramatic increases in death rates during heat waves.[2]

Fig3:Heat-Related-Death in USA in 2018
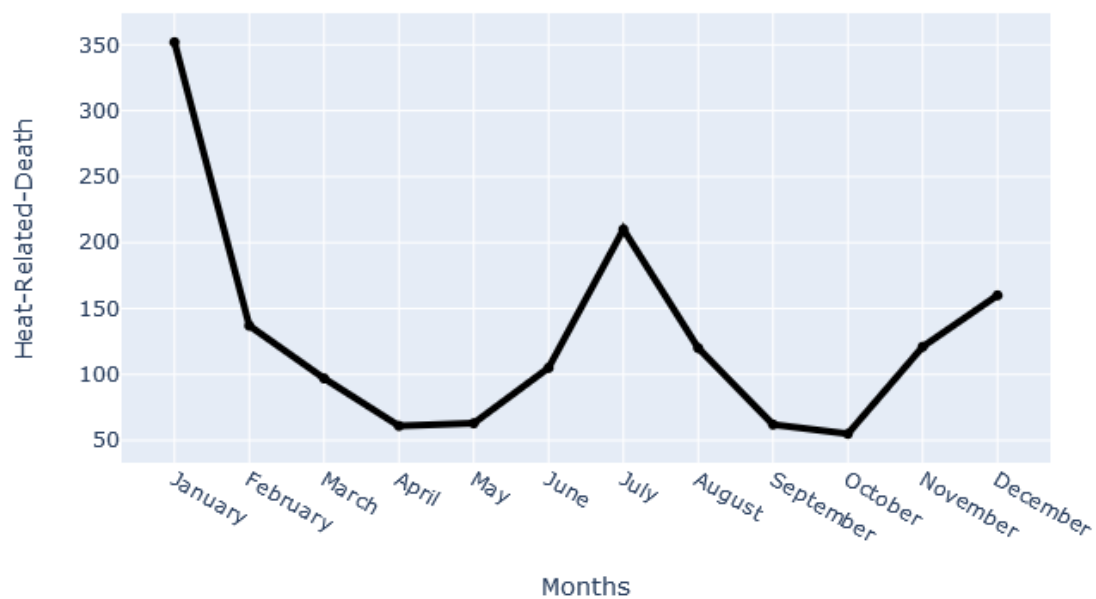
American mostly experience extreme heat during the summertime (July), heat-related do occur during the period. The fig4 shows that July recorded both high temperature and heat-related-death.

Fig4:Influence of High Temp on Heat-Related-Death in USA
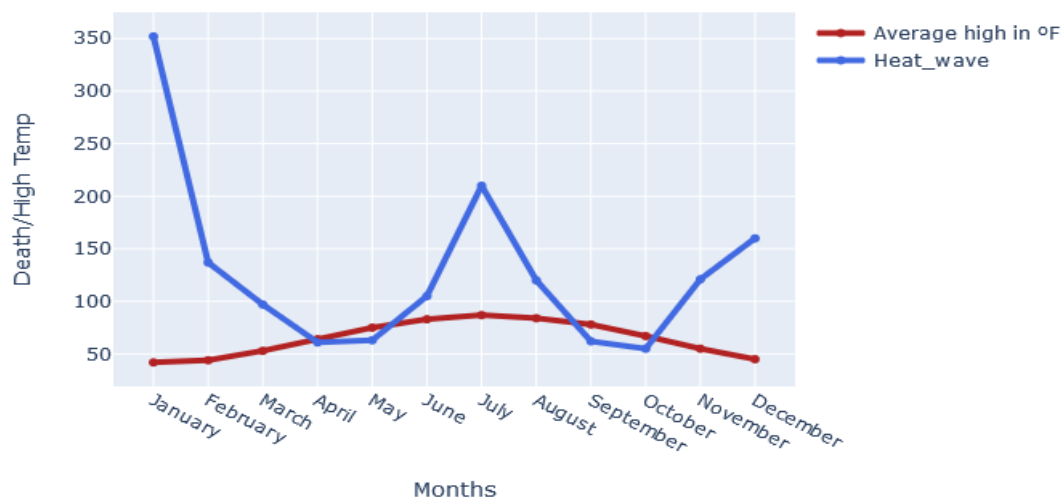
Precipitation

Extreme precipitation often results in flooding and this has contributed to many severe flooding events. In many countries including the USA, research shows that flood is the second deadliest of all weather-related hazards. Most of the precipitated related death occurs through drowning.[3] The fig also show that more precaution needs to be taking in July as it recorded the highest cases.

Fig5:Drowning-Related-Death in USA in 2018
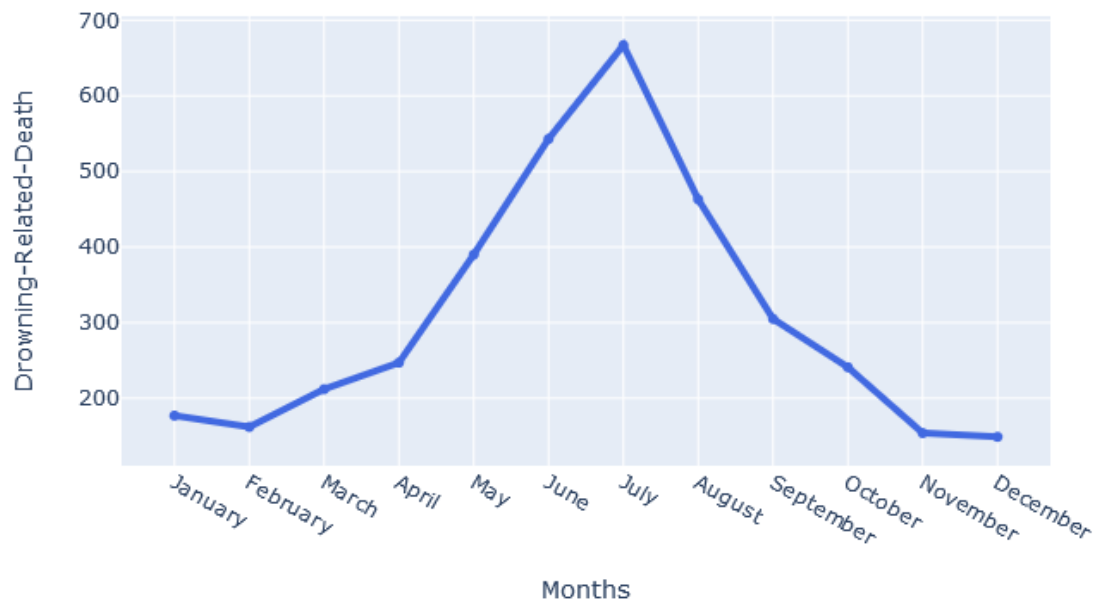
Heavy precipitation can also intensify other health problems such as water-borne disease, asthma, pneumonia, coughing and wheezing and respiratory syncytial virus etc.

Drought

Drought can result from lower rainfall and excess sunlight.

Fig6:Distribution of Sunlight in USA

The period of drought can result in inadequate food and water supply which can lead to public health problems, also severe drought conditions can affect air quality, causes respiratory illness and risk of wildfire

Solution

Below are the solution to limiting and preventing climate change disruption.

Making our community healthier: by promoting the safe use of public transportation and activities movement such as cycling or walking as alternatives to using private vehicles (this will reduce carbon emission which causes a high temperature and air pollution).[4]

Strengthen health systems: It is critical to have a good health system in response to the increasing vector-borne disease from flooding and natural disaster.

Considering environmental health: Intervention in improving water supply, sanitation and planting of trees would reduce the burden.

Conclusion

Climate change is a global problem and it has high negative impact on human health. It is the responsibility of everybody to do the needful to limit and prevent it. The records shows most of the hazard-related-death occur in July (people need to take more careful during the time).

Recommendation

Making our community healthier and Strengthening health systems is the best way to reduce the impact of climate change on human health.

Reference

1. Fritze , JG, et al., Int J Ment Health Syst, 2008.

2. 138 Ellis, EP, Trans R Soc Trop Med Hyg, 1976. 70(5-6)p.402.

3. Ashley, ST, et al., Journal of Applied Meteorology and Climatology, 2008.p 805-818. National Weather Service.

4. Tianna, S, Five Global Health Solution in a Changing Climate. 2015. SIERRA CLUB.