



# Impacts of Climate Change: Human Health



<https://www.thelily.com/thousands-of-students-worldwide-take-to-the-streets-to-protest-climate-inaction/>



<https://www.imperial.ac.uk/news/175973/imperial-experts-join-global-effort-measure/>



<https://www.cnn.com/2019/09/20/world/global-climate-strike-september-intl/index.html>

**“A ruined planet cannot sustain human lives in good health. A healthy planet and healthy people are two sides of the same coin.”  
– Dr. Margaret Chan, Executive Director of WHO**



<https://insideclimatenews.org/-cnews/09122015/medical-community-warns-climate-change-is-an-imminent-public-health-threat-paris-cop21-who>



<https://theconversation.com/the-rise-of-eco-anxiety-climate-change-affects-our-mental-health-too-123002>

## Impacts on Human Physical Health

Climate change will have substantial effects on human health:

- Exposure to thermal extremes will lead to increased rates of heat and cold related deaths and illnesses
- Effect on food production will likely result in malnutrition.
- Air pollution will continue to increase causing possible respiratory disorders and deaths
- Depletion of stratospheric ozone may lead to skin cancers, cataracts, and possible immune suppression
- These factors will also ultimately result in an increased amount of stress.

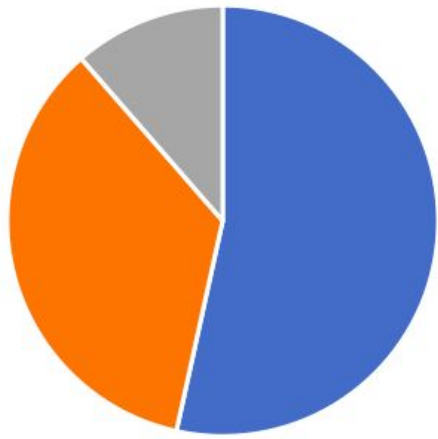
## Impacts on Human Mental Health

Society has become much more aware of human mental health in the past decade. There is strong correlation between climate change and certain negative impacts on someone’s mental health.

- The rise in temperature associated with aggressive behavior
- Heat exposure associated with psychological exhaustion
- Climate disasters can trigger PTSD
- Less precipitation leads to drought so farmers are presented with a dry season and then there’s an increase in suicides in the farmer population



## Other Impacts on Human Health



■ Significantly ■ Very weakly ■ Not at all

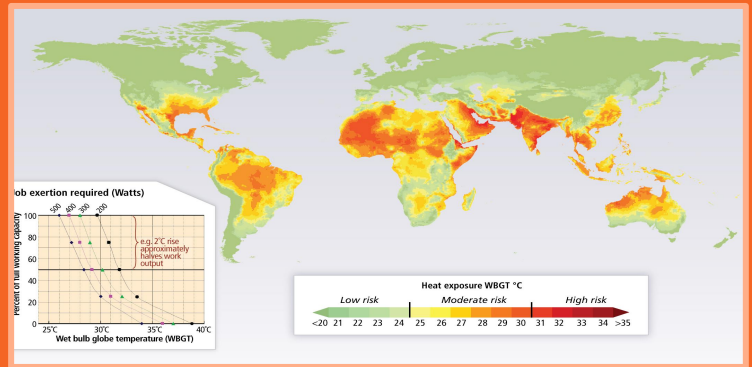
## Public's Perception of the Impact of Climate Change on Human Health

There seems to be a heightened sense of awareness by those that are at risk of climate change and its health impacts. A survey conducted in Maryland saw that people susceptible to health and social issues already felt that their health would be at risk due to climate change. Another survey looked at vulnerable communities in Bangladesh and found that 83.2% of participants observed excessive temperature resulting from climate change. With many of these people being labourers and farmers, they also see the impact it has on farming, which affects their food production.

>> A survey of our peers shows that majority believes human health is affected by climate change. Graph from CPSG folder.

## Current Impacts of Global Change on Human Health

Heat extremes as a result from climate change have a very immediate effect on us. Not only are heat strokes an issue, other illnesses related to cardiovascular and respiratory issues increased due to heat waves. Also, those who have livelihoods from farming will be at an increased risk of exposure to these heat extremes

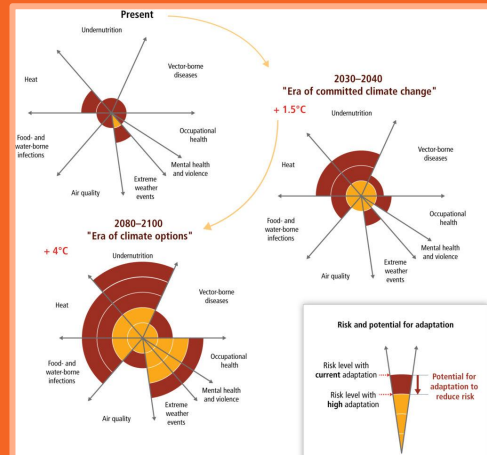


The graph above displays areas where risk for heat exposure is greatest. Those third-world countries that rely on farming like Bangladesh are at greatest risk. Graph from IPCC.

## Near future Impacts of Global Change on Human Health

If trends continue, perhaps most importantly increases in population and population density, there will be increased vulnerability to the environment. This will unfortunately pose new challenges, as the increased need for resources and efficient management develops.

For example, mental health may be impacted by natural disaster, creating stress, anxiety, and depression.



This graphic shows projected increases in several categories of health complications, including heat related problems. Graph from IPCC.

### References:

- Akerlof, Karen, et al. "Vulnerable Populations Perceive Their Health as at Risk from Climate Change." *International Journal of Environmental Research and Public Health*, vol. 12, no. 12, 2015, pp. 15419–15433., doi:10.3390/ijerph121214994.
- "Climate Change and Public Health - Health Effects - Temperature Extremes." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 9 Sept. 2019, [www.cdc.gov/climateandhealth/effects/temperature\\_extremes.htm](http://www.cdc.gov/climateandhealth/effects/temperature_extremes.htm).
- "Climate Change Indicators: Health and Society." *EPA*, United States Environmental Protection Agency, 2 Nov. 2016, [www.epa.gov/climate-indicators/health-society](http://www.epa.gov/climate-indicators/health-society).
- "15: Human Health: Impacts, Adaptation, and Co-Benefits." *IPCC*, The Intergovernmental Panel on Climate Change, [www.ipcc.ch/report/ar5/wg2/human-health-impacts-adaptation-and-co-benefits/](http://www.ipcc.ch/report/ar5/wg2/human-health-impacts-adaptation-and-co-benefits/).
- Kabir, M.I., Rahman, M.B., Smith, W. et al. Knowledge and perception about climate change and human health: findings from a baseline survey among vulnerable communities in Bangladesh. *BMC Public Health* 16, 266 (2016). <https://doi.org/10.1186/s12889-016-2930-3>
- Kovats, S. (n.d.). *Climate Change and Human Health* (A. J. McMichael, A. Haines, & R. Slooff, Eds.). Retrieved April 15, 2020, from [https://apps.who.int/iris/bitstream/handle/10665/62989/WHO\\_EHG\\_96.7.pdf](https://apps.who.int/iris/bitstream/handle/10665/62989/WHO_EHG_96.7.pdf)
- Padhy, Susanta Kumar, et al. "Mental Health Effects of Climate Change." *Indian Journal of Occupational and Environmental Medicine*, Medknow Publications & Media Pvt Ltd, Apr. 2015, [www.ncbi.nlm.nih.gov/pmc/articles/PMC4446935/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446935/)
- Smith, Kirk R, and Alistair Woodward. "Human Health: Impacts, Adaptation, and Co-Benefits."