

# *Climate Change and Mental Health*

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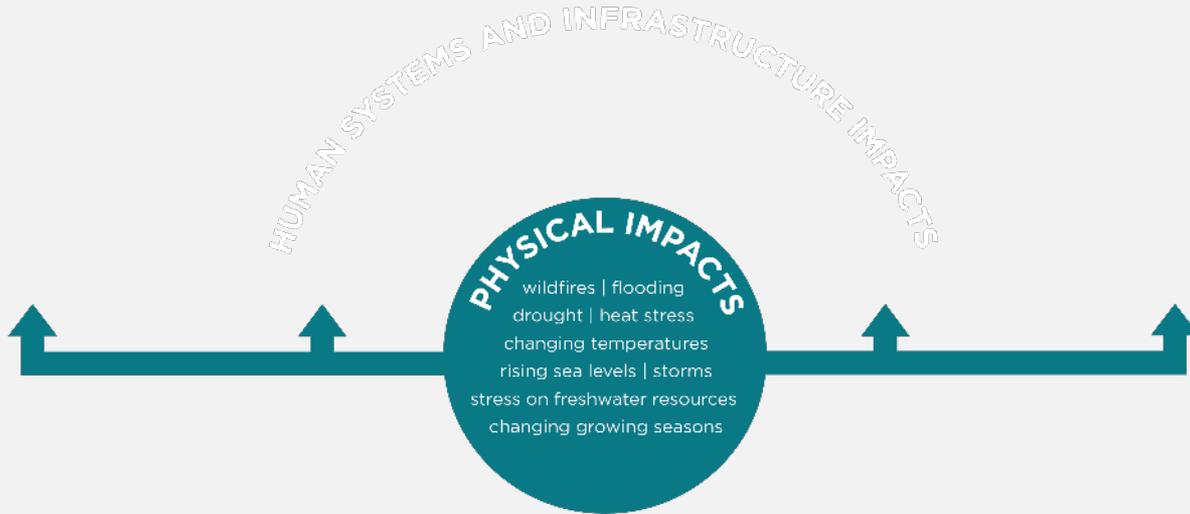
The College of Wooster

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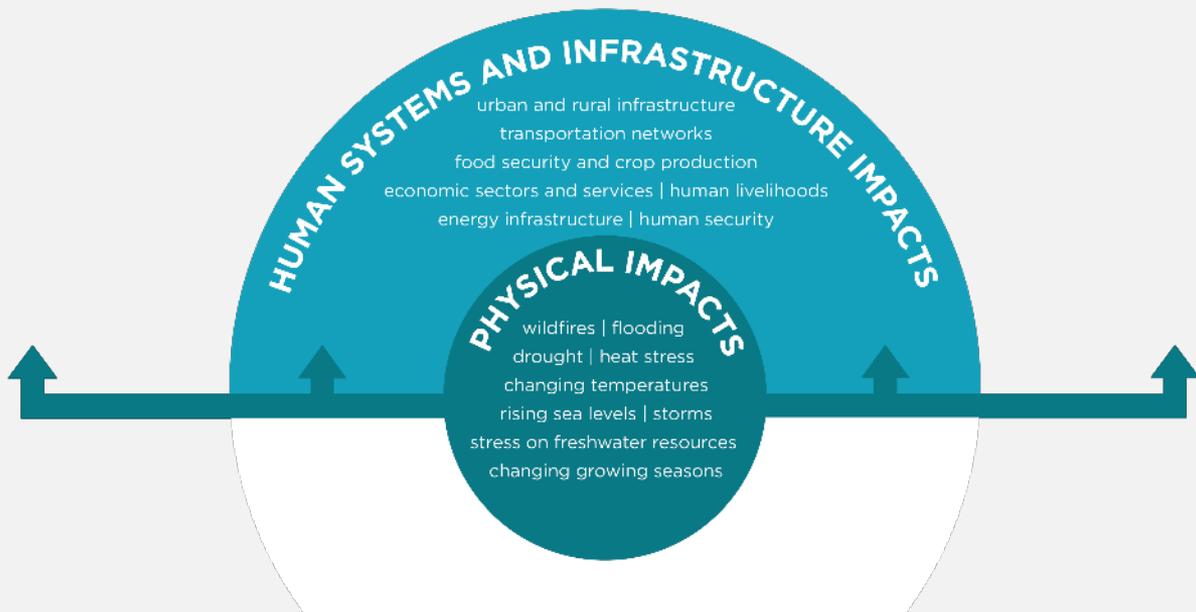
**How can climate  
change affect  
mental health?**

- 1. Direct and indirect effects**
- 2. Acute and gradual changes**
- 3. Experience and perception**

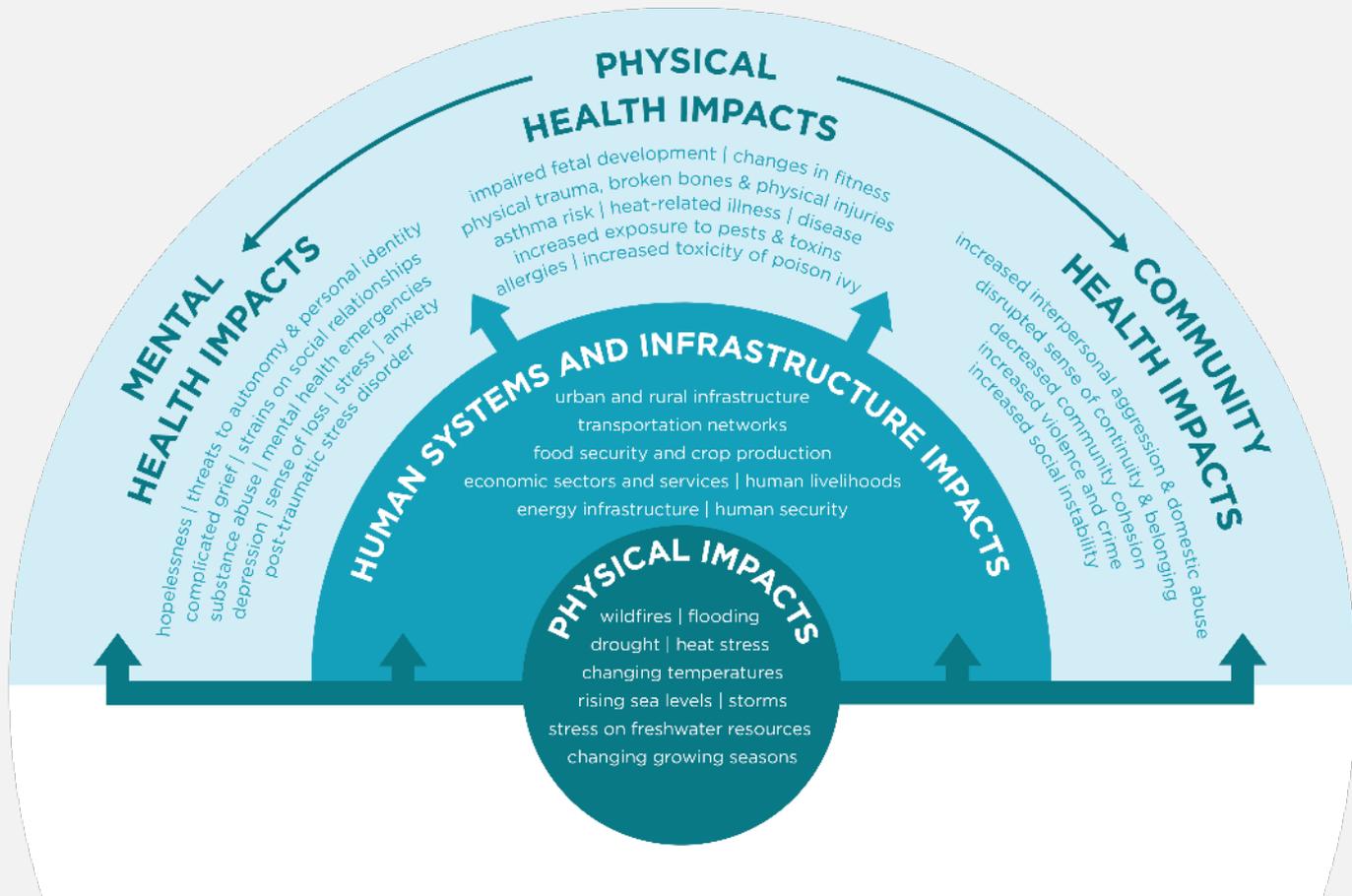
# MENTAL HEALTH AND PHYSICAL HEALTH ARE INTERLINKED



Source:  
EcoAmerica  
<http://ecoamerica.org/research/#PsychImpacts>



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**ACUTE  
IMPACTS  
FROM  
NATURAL  
DISASTERS**

- **PTSD**
- **Depression**
- **General anxiety**
- **Suicide and suicidal ideation**
- **Substance abuse**
- **-- all of which may last several years or longer**

## **E.G., HURRICANE MARIA IN PUERTO RICO**

- **More than 1/5<sup>th</sup> needed mental health services**
- **13% increased use of medication for emotional problems**
- **Suicide increased by 18%**
- **The rate of PTSD doubled**



**OTHER  
EFFECTS  
LINKING  
PHYSICAL  
AND  
MENTAL  
WELLBEING**

- **Sleep disorders**
- **Lowered immune system functioning**
- **Increases in negative health behaviors**
- **Domestic abuse**



## GRADUAL CHANGES

- **Increased temperatures**
- **Changing patterns of precipitation**
- **Sea level rise**
- **Increased ground-level ozone**

**HIGHER  
TEMPERATURES  
HAVE WIDE-  
RANGING  
EFFECTS**



**Suicide rates go up**



**Aggression goes up**



**Performance on cognitive  
tasks goes down**



**Some evidence for mental  
health impacts**

**DECREASES IN  
AIR QUALITY  
ALSO HAVE  
EFFECTS**



**Decreased cognitive  
performance**



**Long-term  
decrements in  
mental health**

**EFFECTS OF  
PERCEPTIONS:  
CLIMATE  
ANXIETY**

- **Concern about climate change is high and increasing**
- **It is a source of stress**
- **Preliminary evidence suggests it threatens mental health for a significant minority**



**INDIRECT  
EFFECTS**

**Due to**

- **economic difficulties**
- **damage to physical and social infrastructure**
- **environmental degradation**
- ***All possibly requiring migration***

## ***Extreme Weather Displaced a Record 7 Million in First Half of 2019***

Stranded passengers in a railway station in Kolkata, India, in May after trains were canceled because of Cyclone Fani. Rupak De Chowdhuri/Reuters

MIGRATION  
PRESENTS A  
HEALTH RISK

Immigrants are more likely to develop psychosis

This is true even among second-generation immigrants.

Refugees experience cumulative stress over the pre-flight, flight, and post-flight periods.



**INDIRECT  
EFFECTS**

**Due to increased inequity**

SOME  
GROUPS ARE  
AT GREATER  
RISK

- Women, children, the elderly, members of marginalized communities
- Members of indigenous communities
- Those already suffering from mental illness

**Inequality itself is a threat to mental health through risk factors such as**

- **Negative self-perception**
- **Stress**
- **Social isolation**
- **Insecurity**

# WHAT CAN BE DONE?

- *Promoting resilience*



THE  
ENVIRONMENT  
CAN BE A  
SOURCE OF  
RESILIENCE

- **A view of nature, e.g. through a window, has been experimentally associated health benefits**
- **Time in the natural world has been associated with greater sense of purpose in life, reduced stress, positive emotions...**
- **... and these positive emotions have in turn been associated with lower levels of pro-inflammatory cytokines, which are associated with a variety of health problems including heart disease and depression**



HEALTH IS  
NOT JUST  
THE  
ABSENCE  
OF DISEASE

## **Climate change presents an opportunity**

- **to examine the social and physical infrastructure of our communities**
- **to consider opportunities of enhancing well-being**

**ACTING ON CLIMATE IS  
ACTING ON HEALTH!**