

Climate, Mental Health and COVID: What Will You Do?

OHSU Medical Student Webinar

6-18-20

David Pollack, MD

Professor Emeritus for Public Policy

Oregon Health & Science University

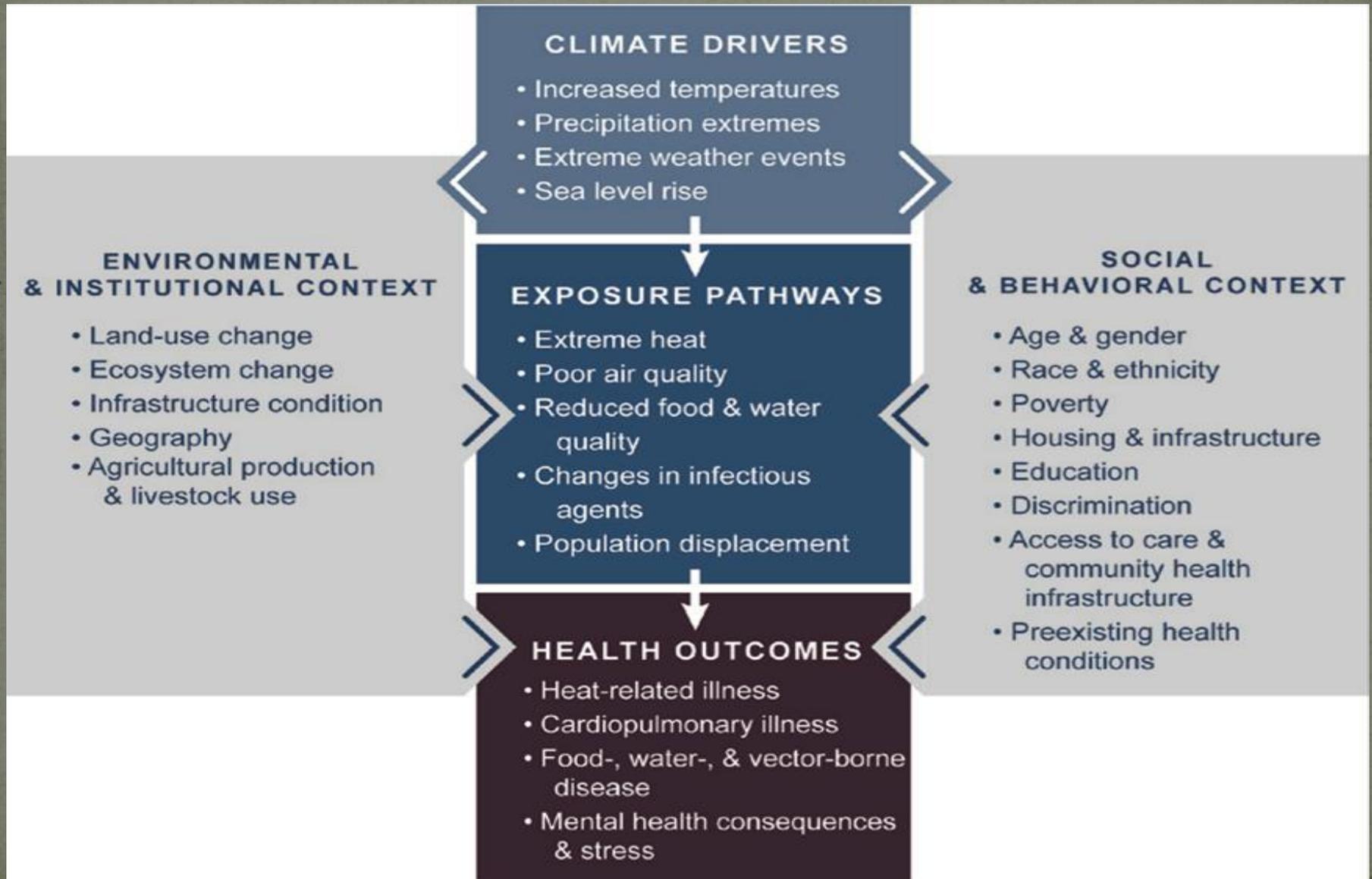
Case Presentation



Overview of Climate and Health

- [Link to NEJM module](#)

Climate Drivers of Health Impacts



Health Determinant Factors Are Intersectional and Interdependent.

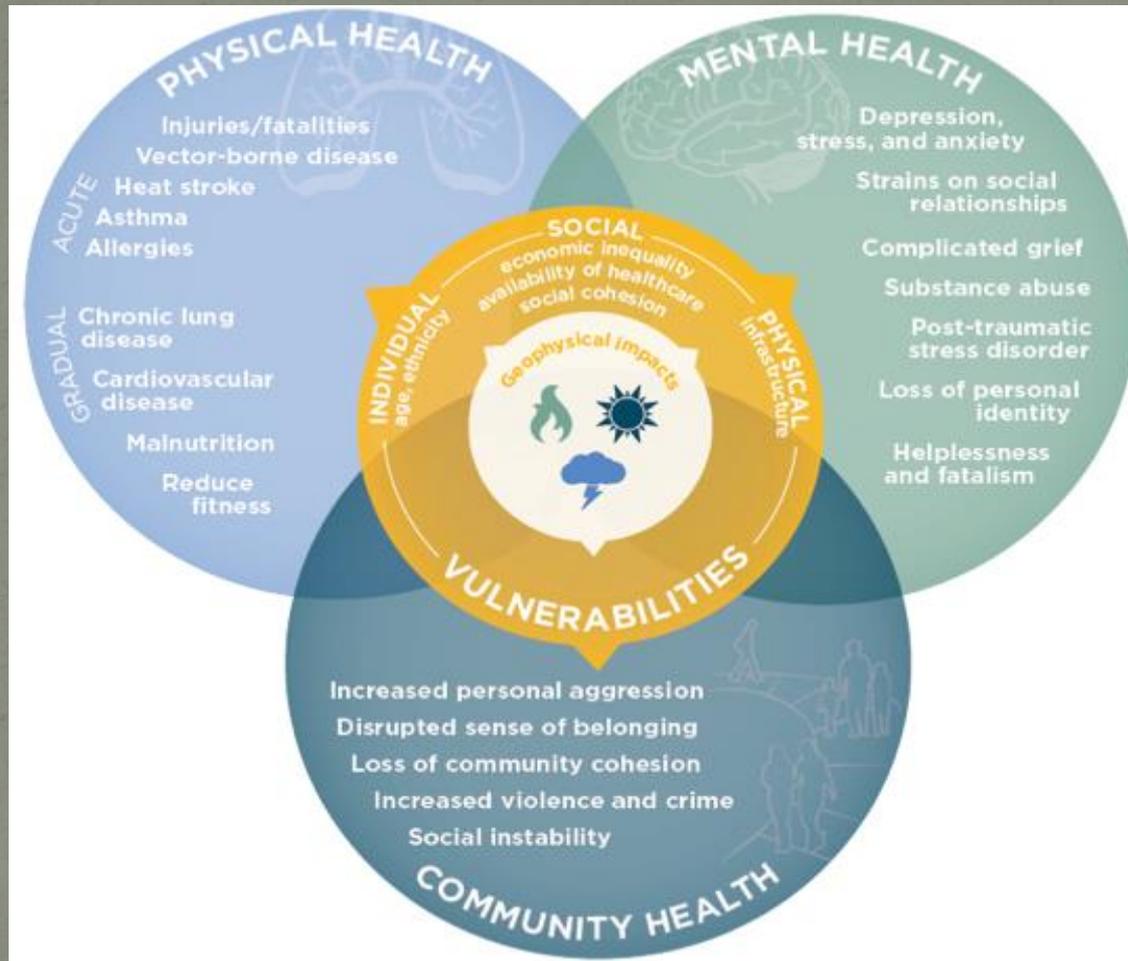


Image © Task force report

<http://ecoamerica.org/wp-content/uploads/2017/03/ea-apa-psych-report-web.pdf>

Mental Health: Direct Effects

- Temperature Impacts
- Air Pollution and Anxiety
- Anxiety, Mood, and Trauma Syndromes
- Exposure to Neurotoxicants
- Impacts on children/youth

Mental Health:

Indirect and Ancillary Impacts/Issues

- Denial as a societal defense mechanism
- Mass migration
- Positive impacts of contact with nature
- Transformational Resilience as a community level public health intervention
- Duty to warn
- Duty to train
- Duty to protect
- Health sector carbon footprint

Environmental, Climate, and Social Justice

- Demographic, geographic, social factors affect vulnerability to health/MH effects of climate change
 - Location, age, gender, SES, health status, disability
 - Existing systems of oppression
 - Disadvantaged and vulnerable populations experience impacts “first and worst”
- Any efforts toward equity contribute to environmental justice
 - Human and civil rights, housing equity, food security, transportation accessibility, law enforcement accountability, healthcare access, just energy transitions, etc, etc, etc.

Children and Climate Change Stress

- Disproportionately vulnerable to adverse biological and psychological effects
- Recommendations similar to grief work
 - Offering information/answering questions with age-appropriate honesty
 - Monitoring fear
 - Meaning-making, positive engagement
- Age-appropriate resources
 - NASA ClimateKids
 - Alliance for Climate Education
 - Climate Reality Project



Climate Change is Real, Immediate, and Threatens Health in Many Ways...

- Health risks derived primarily from fossil fuel and large scale animal production →
 - Increased atmospheric CO₂,
 - Increased global temperature,
 - Rising sea levels,
 - Air pollution,
 - Other factors reflecting rapid and extreme changes in the environment
- These risks lead to acute and extreme events which have longer term physical, psychological, economic, social, and political impacts lasting longer than the acute events.

Resulting in a Wide Range of Physiological and Psychosocial Conditions

- Substantial and long-lasting
- Affect those who are more vulnerable due, in part, to social inequities: “first and worst”,
- Require immediate and ongoing planning/implementation of efforts to combat acute and chronic impacts
- Depend upon broad participation of health, public health, and mental health professionals

The Vicious Cycle that Emerges

- The impacts of CC are further exacerbated or poorly treated when denial of the reality or immediacy of CC drives social norms or public policies.
- The bio-psychological and psycho-social-spiritual impacts are interdependent and mutually reinforcing, thus increasing the degree of suffering and disability.
- These cumulative harms contribute to demoralization, apathy, and amotivation, processes that are antithetical to essential collective and corrective actions at the individual or community levels to mitigate, reverse, and prevent further impacts of CC.

Transformational Resilience*

- Essential and high priority responses to CC:
 - Rapid reductions in carbon emissions
 - Preparing human-built infrastructures and natural resources to withstand and adapt to climate impacts
- Equally important, but generally unacknowledged and unaddressed is the urgent need to proactively build the capacity of individuals, families, organizations, and entire communities to cope with climate adversities without harming themselves, other people, or the natural environment.
- These adaptive efforts, aka Transformational Resilience, can also be catalysts to increase social, psychological, and ecological wellbeing.

*Adapted by David Pollack for the Climate Psychiatry Alliance and Bob Doppelt from his book, Transformational Resilience.

Professional Advocacy & Duty to Warn

- Criteria to evaluate the extent to which health professionals have special obligations to advocate for actions to address Climate Change*
 - Expertise
 - Proximity
 - Effectiveness
 - Low cost or risk
 - Unique
 - Severity
 - Public Trust



*MacPherson & Wynia, AMA J of Ethics, 12-17

Constructive Steps for Health Professionals and Health Systems: CA₂RE

- **Clinical**

- Understand, prevent, and treat health and mental health impacts and participate in social cohesion, facilitating community resilience, and other public health initiatives.

- **Administrative**

- Reduce carbon utilization of small practices, clinics, hospitals, and research facilities; participate in preparation and response for acute weather events and other disasters.

- **Advocacy**

- Disabuse denial, disinvest in fossil fuels, develop and disseminate climate and health impact statements and calls to action, and advise policy leaders

- **Research**

- Promote projects to address key questions relating to climate and mental health

- **Education**

- Provide professional training and incorporate relevant and timely content into all health professional curricula

Action Items

- Connect with people and organizations
- Work toward reducing individual and collective carbon footprint
 - **Individually**
 - Reduce footprint (transport, food, etc.)
 - Self-care
 - **Collectively**
 - Advocate for policy solutions (e.g., Solutions Project)
 - Fight misinformation (actual “fake news”)
 - Advocate for community, environment, future

Major Advocacy Organizations

- Eco-America
- American Public Health Assoc.
- Union of Concerned Scientists
- Physicians for Social Responsibility
- US Climate & Health Alliance
- Health Care without Harm
- American Lung Assoc.
- Citizens Climate Lobby
- Our Children's Trust
- 350.org and 350.pdx.org
- International Transformational Resilience Coalition
- Oregon Climate and Health Resilience Plan



The Twin Crises: COVID and the Climate Crisis

- Climate changes facilitate infectious disease outbreaks and may increase patients' vulnerabilities.
 - Temperature increases increase some vectors' virulence
 - Permafrost melting/thawing may release novel pathogens
 - Climate factors, e.g., air pollution may compromise respiratory and other organ systems, increasing risk of harms from infections

The Twin Crises: COVID and the Climate Crisis

- Societal systems are ill prepared to respond
 - There is no substitute for preparation
 - Supply chains are vulnerable, easily disrupted
 - Tipping points happen quickly
 - We are only resilient as the most vulnerable
 - Science is too often dismissed/ignored
 - Lack of social costs for carbon further endangers the environment → greater health threats

The Twin Crises: COVID and the Climate Crisis

- Health and health system impacts
 - Hospital and public health surge capacity challenged
 - Increased demand threatens sustainability and viability of the health system
 - More threats are on the way in the form of extreme weather events, extreme heat, sea level rise, mass migration, etc.
 - COVID is a preamble and warning shot as the climate crisis continues its inexorable trajectory

The Twin Crises: COVID and the Climate Crisis

- Economic impacts
 - Widespread economic shutdown will have long lasting impacts
 - Some impacts align with proposed climate solutions and improved health conditions, e.g., less fossil fuel use, less consumption of meat and excess packaging
 - 21st century economic imperatives require less emphasis on profits, more emphasis on sustainability

The Twin Crises: COVID and the Climate Crisis

- Coordinated and comprehensive responses required
 - International collaboration is essential
 - US must enact broad reforms in energy, transportation, just transition for displaced workers, health system reforms, i.e., the Green New Deal

Let's Make a Green New Deal



Conclusions

- Health impacts of Climate Change are significant, current, expanding, and last to resolve.
- Health professionals have the skills and obligation to participate in addressing impacts.
- Climate change is the ultimate, cross-cutting social/structural determinant of health, a slow moving mega-disaster.
- Ample opportunities for constructive engagement and positive change for us and society

Mother Earth's Message to Us

- [Sustainable Human video](#)

Questions/Discussion

What Applied to Nuclear Weapons Now Applies to Climate Change.

- “The splitting of the atom (also the over-extraction and consumption of fossil fuels, with excessive release of greenhouse gases into the environment), has changed everything, save our mode of thinking, and thus we drift toward unparalleled catastrophe.”

Albert Einstein

Einstein Also Said:

- “Intellectuals solve problems, geniuses prevent them.”
- Let’s all become geniuses!

Thank You

