Report raises concerns about climate change and health in Connecticut

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The Yale School of Public Health's Center on Climate Change and Health released a new report today on changing conditions in Connecticut that, left untreated, could have serious long-term health

consequences for the state's nearly 3.5 millions residents.

The 100-page report tracks 19 indicators grouped into four categories—temperature, extreme events, infectious diseases and air quality—that were developed using publicly available data.

"We found disturbing trends in all categories," said the report's lead author, Laura Bozzi, Ph.D., the center's director of programs. "This report provides policymakers, health professionals, advocates and the general public with the information they need to take timely action to protect public health."

Among the report's key findings:

- The average annual temperature increased by 3.0o F to 3.5o F in each of the state's eight counties from 1895 to 2019. Higher temperatures heat can cause heat stress, heat stroke and even death. Warmer winter temperatures can create conditions for larger tick and mosquito populations, as well as a longer season for ragweed pollen, which causes hay fever and exacerbates asthma.
- From 2010 to 2019, there were nine federal disaster declarations for weather-related events in Connecticut, compared with only 13 in the previous 56 years.
- Seven of Connecticut's 16 Superfund sites are vulnerable to the effects of climate change, including flooding and hurricane storm surge. In Connecticut, these sites range from old industrial sites to waste lagoons, quarries and landfills. Climate change is making coastal storms more intense and extreme precipitation events and coastal and inland flooding more frequent, which may further damage Superfund sites and potentially release contaminants into ground or surface water, the air or the soil.
- During 2001 to 2019, of 28 mosquito species found in

Connecticut to carry viruses that cause human disease, 10 showed trends of increasing abundance, while three showed trends of decreasing abundance. Mosquito abundance is a key factor that influences the capacity of a mosquito to transmit a virus and the rate at which infections spread.

- Since 1990, the annual number of days on which ground-level ozone exceeded safe levels decreased in all counties, but more improvements are needed to fully protect human health. In fact, the American Lung Association gave all eight Connecticut counties an F grade for ozone pollution in its 2019 State of the Air Report. Switching to clean energy sources and making public transportation more accessible would reduce greenhouse gas emissions and improve air quality by lowering ground-level ozone pollution.

The report concludes that to protect human health now and in the future, Connecticut decision makers and residents alike must undertake strong action to confront the challenges identified in the report. This means swift action to mitigate climate change by reducing greenhouse gas emissions.

"Although we are seeing certain climate impacts now, and some future effects are already unavoidable, preventing catastrophic future impacts will require urgent and comprehensive action from local to global to reduce emissions of greenhouse gases, which cause climate change," the report says. "Importantly, doing so also brings about major public health benefits—or "co-benefits"—in the short term."

Connecticut has committed to reducing greenhouse gas emissions below 2001 levels by 45% by 2030 and 80% by 2050. To achieve these goals requires rapid deployment of zero-carbon electricity—especially solar and wind—and energy efficiency solutions, as well as the electrification of the transportation and building sectors. Connecticut must also expand

its work to prepare for and adapt to the climate change impacts that have begun and will worsen in the future. Together, these actions also provide the opportunity to create clean energy jobs and to prioritize investment in environmental justice communities.

The report notes that while climate change affects everyone, it does not affect everyone equally. Climate change is sometimes called a "risk amplifier," meaning that many existing risks to health—whether environmental, economic, demographic, social, or genetic factors—are intensified by climate change impacts. Populations disproportionately vulnerable to the effects of climate change include those with low income, communities of color, immigrant groups (including those with limited English proficiency), Indigenous people, children and pregnant women, older adults, vulnerable occupational groups, people with disabilities and people with preexisting or chronic medical conditions.

The report concludes with the following seven recommendations to protect human health:

- Monitor current conditions and project trends for Connecticut
- Invest in the social determinants of health
- Tackle the upstream drivers of climate change and health disparities
- Pursue actions that integrate mitigation, adaptation and immediate health benefits
- Build the capacity of health professionals and other decision makers to address climate and health
- Incorporate climate change into decision making across sectors
- Incorporate public health into climate change decision making

More information: A Public Health Response to a Changing Climate: publichealth.yale.edu/climate/

Provided by Yale University