

Climate Change: Our Health in the Balance

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This week, public health professionals across the country will observe National Public Health Week (April 7-13). Organized by state and national public health organizations, the purpose of this annual observance is to raise awareness of a pressing public health issue.

To put it mildly, this year's theme, "Climate Change: Our Health in the Balance," represents the mother of all pressing public health issues. While the public health community has long recognized that health is intrinsically tied to the environment, this year's focus marks an explicit effort to bring the voice of public health into the climate change discussion.

Global climate change is a fact. The relentless pace of severe weather – prolonged droughts, intensive heat waves, violent windstorms, more wildfires, and more frequent "100-year" floods (Reno has had two since I move here in 1996) – is indicative of a changing climate, as is the mundane, but steady increase in average or mean temperatures recorded across the globe over the past century.

The research findings underpinning the pace and magnitude of climate change indicate a consensus in the scientific community that greenhouse gases are primarily responsible for global warming. Though the precise relationship between human activity and climate change is debated by scholars and cynically muddled by policymakers, research has documented conclusive evidence of both the extent of climate change and the accelerating pace of extreme weather events.

While much of the research on global warming has focused on the connections between climate change and the wealth of nations, an emerging body of inquiry has focused on climate change and the health of nations.

Researchers at the Center for Health and the Global Environment at the Harvard Medical School note that, in addition to the disruption of agricultural systems and water supplies caused by climate change, global warming favors the spread of disease and extreme weather events create conditions conducive to disease outbreaks.

For example, malaria is the deadliest, most disabling, and most economically damaging mosquito-borne disease worldwide (3,000 African children die each day from malaria). Global warming affects the range of this disease and extreme weather events, such as prolonged monsoons and flooding, can precipitate even larger outbreaks.

Closer to home, warm winters and spring droughts in North America are playing a role in the amplification of West Nile virus, an urban-based, mosquito-borne infection afflicting humans and horses. To date, there have been over 17,000 cases and over 650 deaths from WNV in North America. Similarly, Lyme disease, a disease that can cause long-term disability, is spreading as winters warm and the suitable range for the deer ticks that carry this infection expand.

In each of these examples, the impact of climate change transcends state and national borders, and is clearly affecting the health of humans, as well as the ecosystems, agricultural systems, and predictable water supplies on which we all depend. In turn, these population health and ecological changes are beginning to disrupt economies and normal patterns of social life in ways that we are only beginning to comprehend and discuss.

The celebration of National Public Health Week and this year's theme of climate change and human health provide us with an opportunity to begin that discussion. This event also provides us with an opportunity to begin to act.

For more information on National Public Health Week, visit www.nphw.org. For more information on the *Climate Change Futures Project* at Harvard University, visit <http://chge.med.harvard.edu/programs/ccf/index.html>.

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