Climate change affects mental and social health as well as physical well-being

July 21 2017, by Ellen Goldbaum

Rising global temperatures are impacting not just peoples' physiological health but also society's health, according to "Heat Advisory: Protecting Health on a Warming Planet," a book by a University at Buffalo professor.

Coming out in paperback in August, the book provides an alarming but systematic overview of the peer-reviewed medical and scientific research exploring the public health impact of climate change. In addition to obvious effects, such as increased death rates caused by heat waves producing heat stroke and related conditions, the book discusses how agricultural disasters caused either by severe droughts or excessive rainfall damage human health.

Author Alan Lockwood, MD, professor emeritus of neurology in the Jacobs School of Medicine and Biomedical Sciences at UB, notes that the ability to procure food in many regions of the world is already problematic as a result of climate change.

"People aren't the only living beings sensitive to the effects of heat. Plants, particularly corn, soybeans and rice are also vulnerable," he explains. "There are critical temperatures above which crop yields fall quite dramatically. Some peer-reviewed studies predict that, in a business as usual scenario, the worldwide yield of corn could drop by 80 percent by the end of this century."

The book points out that events that appear to be political often occur as

a result of factors related to climate change. Many analysts have pointed to the sustained drought in the Middle East as one important cause behind much of the unrest that led to the Arab Spring in 2011.

Lockwood also cites a Scandinavian study that correlated weather information with civil unrest in Africa.

"They concluded it didn't make much difference if you had too much rain or too little," he says. "The problem of civil unrest rose quite dramatically with either one." The book includes the data that demonstrates that correlation.

It provides copious research confirming many previous studies demonstrating that the most catastrophic effects will impact the planet's poorest populations and that if any of these effects can be mitigated, they will require massive investments. "A huge amount of public health infrastructure needs to be developed and fostered to protect people globally and in the U.S. from the potential of spreading insect- and tick-borne diseases. A lot of these things we know how to do. But, we need to mobilize more resources to protect ourselves and future generations against what will be predictably occurring."

The book draws connections between the increased incidence of such diseases and obstacles to higher education and economic mobility in populations affected by them.

"Malaria makes countries poor and keeps them that way," says Lockwood. "In countries where there is a high incidence of malaria, hundreds of thousands of children die and if they survive, they're not as well-educated, they're likely to be anemic and of low-birth weight, so their intellectual potential isn't as high. For countries like this, it's very hard for them to make the economic and social progress to rise from third world status."

And while populations in the U.S. may not be the first to experience the worst climate change has to offer, no one can afford to be complacent, according to Lockwood. "Look at maps of the range of the mosquito carrying dengue and Zika," he says, "It spreads up to the Ohio River Valley. Already the Aedes aegyptii mosquito has been found to spread north from Gulf states during summers and it's found all year round in the Gulf coast."

At a time when the President of the United States recently pulled the country out of the most important climate change effort in the world, Lockwood knows that unfortunately, one of the most critical factors in fighting the impending disaster – strong political leadership – is simply missing at government's highest levels.

"This is where we come in, where we need broad grassroots support for the kinds of policies that we need. In part, that's the purpose of my book, to generate a better-informed public. "

Lockwood is a senior scientist with Physicians for Social Responsibility. His previous book is The Silent Epidemic: Coal and the Hidden Threat to Health.

Provided by University at Buffalo

Citation: Climate change affects mental and social health as well as physical well-being (2017, July 21) retrieved 20 April 2024 from https://phys.org/news/2017-07-climate-affects-mental-social-health.html