THE MORAL LIBERAL

Human Mortality Due to Heat Is NOT Rising!

Craig D. Idso

July 28, 2016

In previous postings, we investigated the likelihood of a serious climate-related concern expressed by the United Nations Intergovernmental Panel on Climate Change (IPCC), that CO₂-induced global warming will lead to a future increase in the number of heat related deaths worldwide (see, for example, On The Bright Side: Declining Deaths Due to Hot and Cold Temperatures in Hong Kong and Response to Heat Stress in the United States: Are More Dying or Are More Adapting?). In short, we found there is an absence of empirical data to support the IPCC's claim.

The latest study to investigate this topic comes from Arbuthnott *et al.* (2016), who introduce their work by noting that "interest in understanding temperature related health effects is growing." And as their contribution to the subject, they set out to examine "variations in temperature related mortality risks over the 20th and 21st centuries [in order to] determine whether population adaptation to heat and/or cold has occurred."

A search of 9183 titles and abstracts dealing with the subject returned eleven studies examining the effects of ambient temperature over time (i.e., relative risk or RR) and six studies comparing the effect of different heatwaves at specific points in time. Out of the eleven RR studies, with respect to the *hot* end of the temperature spectrum, Arbuthnott *et al.* report "all except one found some evidence of decreasing susceptibility," leading the team of four UK researchers to conclude that "susceptibility to heat [has] appeared to stabilize over the last part of the century." Interestingly, however, at the *cold* end of the temperature spectrum, they say "there is little consistent evidence for decreasing cold related mortality, especially over the latter part of the last century."

With respect to the impacts of *specific heatwave events* on human health, Arbuthnott *et al.* state that four of the six papers included in this portion of their analysis revealed "a decrease in expected mortality," again signaling there has been a decrease in the vulnerability of the human populations studied over time. As for the cause(s) of the observed temperature-induced mortality declines, the authors acknowledge their methods are incapable of making that determination. However, they opine that it may, in part, be related to physiological acclimatization (human adaptation) to temperature.

Whatever the cause, one thing is certain: despite current temperatures rising to levels characterized by the IPCC and others as unprecedented over the past two millennia or more, the relative risk of temperature-related human mortality events has *not* increased, which observation is just the *opposite* of climate alarmist projections.

Craig D. Idso is the founder and former President of the Center for the Study of Carbon Dioxide and Global Change and currently serves as Chairman of the Center's board of directors.