An overheated climate alarm, but guess what: cold kills more people.

by Bjorn Lomborg in the *Wall Street Journal*

The Obama administration released a new report this week that paints a stark picture of how climate change will affect human health. Higher temperatures, we're told, will be deadly—killing "thousands to tens of thousands" of Americans. The report is subtitled "A Scientific Assessment," presumably to underscore its reliability. But the report reads as a political sledgehammer that hypes the bad and skips over the good.

It also ignores inconvenient evidence—like the fact that cold kills many more people than heat.

Climate change is a genuine problem that will eventually be a net detriment to society. Gradually rising temperatures across decades will increase the number of hot days and heat waves. If humans make no attempts whatsoever to adapt—a curious assumption that the report inexplicably relies on almost throughout—the total number of heat-related deaths will rise.

But correspondingly, climate change will also reduce the number of cold days and cold spells. That will cut the total number of cold-related deaths. Consider a rigorous study published last year in the journal *Lancet* that examined temperature-related mortality around the globe. The researchers looked at data on more than 74 million deaths in 384 locations across 13 areas: cold countries like Canada and Sweden, temperate nations like Spain, South Korea and Australia, and subtropical and tropical ones like Brazil and Thailand.

The *Lancet* researchers found that about 0.5%—half a percent—of all deaths are associated with heat, not only from acute problems like heat stroke, but also increased mortality from cardiac events and dehydration. But more than 7% of deaths are related to cold—counting hypothermia, as well as increased blood pressure and risk of heart attack that results when the body restricts blood flow in response to frigid temperatures. In the U.S. about 9,000 people die from heat each year but 144,000 die from cold.
The administration's new report refers to this study—it would be difficult to ignore, since it is the world's largest—but only in trivial ways, such as to establish the relationship between temperature and mortality. Not once does this "scientific assessment" acknowledge that cold deaths significantly outweigh heat deaths.

The report confidently claims that when temperatures rise, "the reduction in premature deaths from cold are expected to be smaller than the increase in deaths from heat in the United States." Six footnotes are attached to that statement. But one of the cited papers doesn't even estimate cold deaths; another flat-out disagrees with this assertion, projecting that cold deaths will fall more than heat deaths will rise.

Further, the figure that made it into news reports, those "tens of thousands" of additional deaths, is wrong. The main model that the administration's report relies on to estimate temperature-related mortality finds, in a worst-case scenario, 17,680 fewer cold deaths in 2100, but 27,312 more heat deaths—a net increase of 9,632.

Moreover, the model considers cold deaths only from October to March, focusing on those caused by extreme temperatures in winter. Most cold deaths actually occur during moderate temperatures, as the *Lancet* study shows. In the U.S., about 12,000 people die from extreme cold each year but 132,000 die from moderate cold. In London, more than 70% of all cold-related deaths occur on days warmer than 41 degrees Fahrenheit. Although extreme temperatures are more deadly, they occur only a few days or weeks a year, whereas moderate cold comes frequently.

Thus, one of the central findings in the administration's new report is contradicted by a large number of scientific studies from around the globe. A 2009 paper from the European Union expects that the reduction in cold deaths will definitely outweigh extra heat deaths in the 2020s. Even near the end of the century, in the 2080s, the EU study projects an increase in heat deaths of "between 60,000 and 165,000" and a decrease of cold deaths of "between 60,000 and 250,000." In other words, the effects will probably balance each other out, but warming could save as many as 85,000 lives each year.

An academic paper published two years ago in *Environmental Health Perspectives* similarly shows that global warming will lead to a net reduction in deaths in both the U.K. and Australia. In England and Wales today, the authors write, statistics show that heat kills 1,500 people and cold kills 32,000. In the 2080s, they calculate that increased heat will kill an additional 3,500. But they find that cold deaths will drop by 10,000. In Australia the projections suggest 700 more heat deaths but 1,600 fewer cold deaths.

Globally, one estimate of the health effects of climate change, published in 2006 by *Ecological Economics*, shows 400,000 more respiratory deaths

(mostly from heat) by midcentury, but 1.8 million fewer cardiovascular deaths (mostly from cold).

In pushing too hard for the case that global warming is universally bad for everything, the administration's report undermines the reasonable case for climate action. Focusing on only the bad side of the ledger destroys academic and political credibility.

Although there is a robust intellectual debate on heat and cold deaths, there is a much simpler way to gauge whether people in the U.S. consider higher temperatures preferable: Consider where they move. Migration patterns show people heading for warm states like Texas and Florida, not snowy Minnesota and Michigan.

That's the smart move. A 2009 paper in the *Review of Economics and Statistics* estimates that because people seek out warmth, slightly more die from the heat, but many fewer die from the cold. In total, the actions of these sun-seekers avert 4,600 deaths in the U.S. each year. You won't be surprised to learn that the study wasn't mentioned in the administration's half-baked report.

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