Doctors on climate change
Wrong diagnosis, harmful prescription

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Doctors have a reputation for being a sober and serious bunch, so when they give advice, people normally sit up and listen. It should give us particular cause for concern, then, when the head of the World Health Organization (WHO), Dr. Margaret Chan, warns that climate change is a “fifth horseman” of the Apocalypse that will rain pestilence and disease upon humanity (Chan, 2007). Dr. Chan is not the only senior medic to warn of the apocalyptic consequences of climate change for human health: the president of the distinguished Royal College of Physicians in London claimed in January that “the effects of climate change on health could eclipse those of smoking, alcohol and obesity” (The Mirror, 2008, Jan. 30).

The reasoning behind such alarmism is theoretically plausible. Warmer temperatures could cause formerly “tropical” diseases such as malaria to make their way north to countries such as the United States and even Canada. The human cardiovascular system is indeed put under pressure by intense heat; consequently, rising global temperatures could theoretically lead to more deaths everywhere. Meanwhile, increased flooding and catastrophic weather events due to climate change could result in additional deaths, particularly in the poorest parts of the world.

Doctors are using these scenarios to add their powerful voice to calls for deep cuts in carbon emissions in an attempt to stabilize global temperatures. But if their aim is to actually improve health—particularly in poor countries—they would be hard pressed to find a worse solution.

Climate and vector-borne disease

First, it is worth examining the relationship between climate and vector-borne disease. A vector-borne disease is an illness that is transmitted by blood-sucking arthropods, such as mosquitoes and ticks, from an infected individual to another individual. Paul Hunter, a professor of health protection at the University of East Anglia in the UK, has argued that “climate change poses a significant risk of the introduction of vector-borne diseases into Europe,” and cites malaria as an example (Lantin, 2008, Jan. 26). But this assertion fails to take into account the vast range of human and ecological factors that determine the incidence of this disease.

According to Professor Paul Reiter, an expert on insect-borne diseases and a contributor to the UN’s Intergovernmental Panel on Climate Change, ”there is no evidence that climate has played any role in the burgeoning tragedy of this disease.” Reiter points out that malaria was endemic throughout northern Europe, and in parts of Canada and the United States, until the second half of the 19th century, when changes in agricultural practices, improved drainage, and better human dwellings led to a spontaneous decline of the disease (Reiter, 2007b). Because mosquitoes suddenly had fewer opportunities to bite people, the transmission cycle of the malarial parasite was disrupted, resulting in its extinction in these countries—even while records show temperatures were actually rising during this period. Malaria was also recorded as far north as Archangel near the Arctic circle, when 10,000 people died of the disease in the 1920s. The last recorded case of malaria in Europe occurred in the Netherlands, which the WHO declared malaria free in 1970 (Reiter, 2005).

Professor Hunter also cites the emergence of insect-borne chikungunya in Italy last summer as definitive evidence that climate change is increasing the risk of insect-borne diseases in Europe (Lantin, 2008, Jan. 26). However, according to a detailed study of the outbreak by Professor Reiter, the arrival of chikungunya in Europe had more to do with globalization than climate change—in particular, it was related to the increase of intercontinental container shipping (Reiter, 2007a).

Heat waves versus cold snaps

Some doctors also claim that global warming will lead to more deaths from heat waves, as the sick and elderly struggle with high temperatures, but perspective on this subject is needed. Professor Bill Keatinge (2004), an expert on the effects of temperature on human physiology from the University of London, has shown that deaths do increase in the
first few days of a heat wave, but most of those who die are extremely sick people who were likely to die shortly anyway. The data shows that average mortality actually decreases during the later stages of heat wave.

Humans have developed a range of ways for coping with high temperatures, from siestas to air conditioning. Consider, for example, people from Australia or Florida, who despite having an extremely warm climate are not dropping like flies. Judging by the number of people who voluntarily migrate to these warmer regions, a hotter climate is something that humans actively seek out. In fact, cold weather is far more harmful to human health than hot weather, because it increases the risk of respiratory infections, heart attacks, and strokes. Britain, for example, experiences only 1,000 heat-related deaths every year, but experiences 40,000 cold-related deaths (Keatinge, 2004).

Moreover, we shouldn’t be too concerned with the spectre of the increased threat to health of catastrophic weather events. According to calculations by Indur Goklany (2007), a United States-based policy analyst, global deaths due to extreme weather events have declined by 95% since the 1920s. This is largely due to humanity’s increasing ability to protect itself from drought and floods, an ability Goklany ascribes to the increasing range of technological solutions which enable societies to both preempt and respond to the consequences of extreme weather events: “Such options range from early warning systems, building codes, and better meteorological forecasts, to better construction, communications and transportation systems, all of which have increased the ability to transport people and material (including food, medical and other essential supplies) in and out of disaster zones.” Increased wealth has allowed this to occur.

Negative results of cutting emissions

In contrast, the cost of cutting greenhouse gas emissions would certainly have a serious negative effect on human health. According to calculations made in 2005 by Lombard Street Research, a United Kingdom economic consultancy, a new global treaty that would stabilize the climate at today’s temperatures, assuming restricting human emissions could stabilize the climate, would cost a total of $18-20 trillion (US)—or 45% of the world’s current annual economic output. This is how potential policies relating to climate change could have a very real—and very nasty—effect on health, particularly in the poorest countries.

Such a treaty would create a massive drag on economic growth, which we know is an absolute prerequisite for improved health. Economic growth brings with it the resources that can be used to tackle the most significant causes of death in developing countries. These causes include chest infections caused by using smoky wood and biomass fuels for indoor cooking and heating; diarrhea caused by poor sanitation; and malnutrition. All of these maladies are a direct result of poverty. One authoritative study has shown that if economic growth in the developing world had been a mere 1.5% higher in the 1980s (over the entire decade), at least 500,000 child deaths could have been prevented (Pritchett and Summer, 1996).

The elimination of malaria in European countries such as Britain was a byproduct of increasing prosperity. Exposure to mosquitoes decreased once people could afford windows for their houses and separate barns for cattle. Farmers adopted practices such as tillage and field drainage, which deprived the mosquitoes of feeding and breeding opportunities. In other wealthy countries such as the United States, public authorities were able to combine this with the mass spraying of DDT to effectively eradicate the disease. It is no coincidence that malaria is currently confined to the poorest parts of the world, because these areas are the least able to afford such changes.

Mandatory caps on carbon emissions would be a betrayal of the sick in the world’s poorest regions because such regulations would undermine the one mechanism—economic growth—which allows people to move beyond the primitive living conditions that encourage the spread of such diseases. Restraining economic growth with the hope of staving off hypothetical threats to humanity will almost certainly reduce our ability to deal with today’s genuine health problems.

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A strong economy also helps those of us who are living in northern countries to cope with the vagaries of our climate by giving us the wealth to afford central heating, insulation, windows, warm clothing, and umbrellas. It also gives us the resources to build flood defenses and drainage systems. If we exclude developing countries from this virtuous circle of prosperity, we will also remove their ability to afford the technology that would allow them to adapt to a changing climate. If doctors are really concerned about the effects of climate on health,
the last thing they should be doing is advocating the effective emasculation of the global economy.

References


