



Global Warming- Impacts on Human Health

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Abstract:

Global warming will have numerous damaging impacts on human health. Spreading infectious disease, longer and hotter heat waves, and extreme weather will all claim thousands of additional lives nationwide each year. If global warming continues unabated, both we and our children will pay a terrible price. Scientists predict that the greenhouse effect will be enhanced and the earth's climate will become warmer and this is referred to as Global warming. The climate change "is likely to have wide-ranging and mostly adverse impacts on human health, with significant loss of life."

Key words: Global warming, particular diseases, human health

Introduction

Scientists predict that the greenhouse effect will be enhanced and the earth's climate will become warmer and this is referred to as Global warming. The climate change "is likely to have wide-ranging and mostly adverse impacts on human health, with significant loss of life." People with heart problems are vulnerable because one's cardiovascular system must work harder to keep the body cool during hot weather. Heat exhaustion and some respiratory problems increase.

Global Warming- Impacts on Human Health: Ozone damages lung tissue, and causes particular problems for people with asthma and other lung diseases. Global warming also increase "Vector-borne" diseases include dengue fever, yellow fever, malaria and encephalitis. Heat-related deaths can be prevented by emergency measures to move vulnerable people to air. "Onditioned buildings, and by reducing the emissions of photochemical

oxidants which cause ground-level ozone. Scientists predict that the greenhouse effect will be enhanced and the earth's climate will become warmer and this is referred to as Global warming. As part of its research the Intergovernmental Panel on Climate Change (IPCC), a United Nations sponsored organization made up of over 2500 of the world's leading scientists, examined the impacts global warming will likely have on human health. They concluded that human induced climate change "is likely to have wide-ranging and mostly adverse impacts on human health, with significant loss of life." The IPCC's results are a grim indication that in the future rising temperatures may be measured in bodies, not degrees.

Throughout the world, the prevalence of particular diseases and other threats to human health depend largely on local climate. Extreme temperatures can directly cause the loss of life. Moreover, several serious diseases only appear in warm areas. Finally, warm



temperatures can increase air and water pollution, which in turn harm human health. The most direct effect of climate change would be the impacts of hotter temperatures themselves. Extremely hot temperatures increase the number of people who die on a given day for many reasons: People with heart problems are vulnerable because one's cardiovascular system must work harder to keep the body cool during hot weather. Heat exhaustion and some respiratory problems increase.

Higher air temperatures also increase the concentration of ozone at ground level. The natural layer of ozone in the upper atmosphere blocks harmful ultraviolet radiation from reaching the earth's surface; but in the lower atmosphere, ozone is a harmful pollutant. Ozone damages lung tissue, and causes particular problems for people with asthma and other lung diseases. Even modest exposure to ozone can cause healthy individuals to experience chest pains, nausea, and pulmonary congestion. In much of the nation, a warming of four degrees (F) could increase ozone concentrations by about 5 percent. Statistics on mortality and hospital admissions show that death rates increase during extremely hot days, particularly among very old and very young people living in cities. In July 1995, a heat wave killed more than 700 people in the Chicago area alone. Studies based on these types of statistics estimate that in Atlanta, for example, even a warming of about two degrees (F) would increase heat-related deaths from 78 today to anywhere from 96 to 247 people per year. If people are able to install air conditioning and otherwise acclimatize themselves to the hotter temperatures, the lower estimate is more likely. Global

warming may also increase the risk of some infectious diseases, particularly those diseases that only appear in warm areas. Diseases that are spread by mosquitoes and other insects could become more prevalent if warmer temperatures enabled those insects to become established farther north; such "vector-borne" diseases include dengue fever, yellow fever, malaria and encephalitis.

Dengue Fever

Dengue, or "breakbone", fever is a mosquito borne disease related to yellow fever. Unlike its relative, however, there is no vaccine against dengue. One strain of the disease, hemorrhagic dengue fever, is often deadly, and expected to spread have little experience diagnosing or treating it. The range of the mosquito which carries dengue fever is limited by temperatures. Frost kills both adults and larvae.

Malaria

Like dengue fever, malaria is a mosquito borne illness normally limited by temperatures. Rising temperatures have expanded its range, and exposed new populations to infection. IPCC scientists project that as warmer temperatures continue to spread north and south from the tropics and to higher elevations, malaria-carrying mosquitoes will spread with them. They project that global warming could put as much as 65 percent of the world's population at risk of infection by malaria.

Cholera and Encephalitis

Climate-related increases in sea surface temperatures and sea level can lead to higher incidence of water-borne infectious and toxin-related illnesses such as cholera and shellfish poisoning; zooplankton which can harbor cholera proliferate in warmer water











temperatures, and provide a potential environmental reservoir for the disease. Cholera killed 120,000 world-wide people in 1995, most of them children. Outbreaks of encephalitis, another illness with strong links to warmer temperatures, also appear to be on the rise. Since 1987 there have been major outbreaks in Florida, Mississippi, New Orleans, Texas, Arizona, California, and Colorado. Some scientists believe that algal blooms could occur more frequently as temperatures warm particularly in areas with polluted waters in which case

diseases such a cholera that tend to accompany algal blooms could become more frequent.

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Figure-1: Potential health impacts from global climate Change

	Heat Waves	More heat-related deaths and illnesses
	Air Pollution	Aggravation of cardiovascular and respiratory diseases from worsening air quality
	Terrestrial Changes	Risk of infectious diseases because of new geographic ranges and activity of disease-carrying animals, insects, and infective parasites
	Altered Marine Ecology	Changes in incidence of cholera and food poisoning from toxic algae
	Storms	Deaths and injuries from storms and floods and intestinal illnesses from flooding of sewage treatment plants
	Droughts	Rising malnutrition in some countries
	Population Displacement	Injuries and increased risk of disease due to migration and crowding
	Saltwater Encroachment in Coastal Aquifers	Greater risk of intestinal illnesses from inadequate water supplies



Heat-related deaths can be prevented by emergency measures to move vulnerable people to air-conditioned buildings, and by reducing the emissions of photochemical oxidants which cause ground-level ozone. Many of the impacts of climate change on health could be avoided through the maintenance of strong public health programs to monitor, quarantine, and treat the spread of infectious diseases and respond to other health emergencies as they occur. Although air conditioning and public health programs may impose additional costs on the public and private sectors, they would often be preferable to the impacts on human health that would otherwise occur.

Warmer temperatures may decrease the number of people who die each year from cold weather. However, in the United States, only 1000 people die from the cold each year, while twice that many die from the heat. Deaths due to the heat are more sensitive to temperature changes than deaths due to the cold; the difference between -20°F and -15°F, for example, has a much smaller impact than an increase from 95°F to 100°F.

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