



Physicians for Social Responsibility

U.S. Affiliate of International Physicians for the Prevention of Nuclear War



Testimony of Michael McCally, MD, PhD
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Good morning, Madame Chair and members of the committee. I am Dr. Michael McCally, Executive Director of Physicians for Social Responsibility (PSR), and a medical school Professor of Community and Preventive Medicine. My field is environmental health. I am pleased to join Dr. Gerberding and Commissioner Cooper in testifying before the committee about the human health dimensions of global warming.

Managing global warming will be a long and protracted task. The U.S. must engage now and with the same level of effort we mounted to deal with previous global crises: two world wars and a cold war. As a leading emitter of greenhouse gases the United States must accept its share of the burden in solving this problem.

PSR and its 32,000 members believe climate change is a global health crisis. In support of this position I am pleased to provide to the committee today a list of 115 distinguished physicians that includes professors from 15 medical schools, a former governor, two Nobel Laureates and former Surgeon General David Satcher.

We continue to collect endorsers for these principles, which also are supported by the American Nurses Association, the American Public Health Association and the National Association of Pediatric Nurse Practitioners. Together, these groups represent more than 200,000 physicians, nurses and public health professionals. All have joined PSR in calling on this committee, the Congress and the president to act on global warming and quickly put in place appropriate controls on greenhouse gas emissions.

Already, the World Health Organization estimates that 150,000 people die every year from effects of global warming. While those deaths may not be as apparent in the U.S., the impacts of global warming are pervasive and will shortly affect every citizen in this country in some manner.

I have provided all members of the committee with a brief analysis prepared by PSR that highlights the human health impacts of global warming in the U.S. Weather related events that cause death are not uncommon in the U.S. – it is the extremes and frequency of these events that will cause a mounting public health toll. Likewise, poor air quality is presently a problem in many areas of the country and will be exacerbated by rising temperatures.

Already we are seeing the symptoms of global warming in the form of heat waves, fires, flooding, hurricanes, drought and increases in pest and water borne diseases:

- The most recent report from the Intergovernmental Panel on Climate Change confirms that across the globe, including here in the United States, the frequency and duration of heat waves has increased over the last 50 years. In the summer of 2003, record breaking heat waves across Europe claimed an estimated 35,000 lives, tragically demonstrating the potentially disastrous public health consequences of a continued trend of increasingly frequent extreme heat events. Looking into the future, researchers estimate that Chicago will experience 25 percent more frequent heat waves with a business-as-usual scenario, while the number of annual heat wave days in Los Angeles will rise from 12 to between 44 and 95 – the upper end of this range marking a 692 percent increase. Extreme heat, already the number one cause of weather-related deaths in the U.S., will become an increasing public health burden if global warming is left unmitigated.
- Although ambient air pollutant concentrations have generally fallen since passage of the 1970 Clean Air Act, more than 100 million Americans live in areas where ozone levels exceed the U.S. Environmental Protection Agency's 8-hour air quality standard and rates of asthma and other respiratory diseases continue to rise. Global warming will undermine efforts to improve air quality as rising temperatures accelerate ozone formation during summer months. A recent study published in the journal *Climatic Change* projects that across 50 U.S. cities, the number of unsafe air days – days when ozone levels exceed the U.S. Environmental Protection Agency's 8-hour air quality standard – will increase by 68 percent. The study also estimates that the number of unhealthy “red alert” days – days when everyone, young and old, healthy and infirm are advised to avoid prolonged outdoor exertion – is expected to more than double across these 50 cities. Here in the nation's capitol, the number of healthy air days during the summer months is expected to drop by 24 percent. Left unaddressed, rising ozone concentrations will cause serious respiratory and cardiovascular health problems in America's cities.
- West Nile Virus, virtually unseen in the U.S. as recently as 1999, has spread to 47 states as warmer winters and changing precipitation patterns allow conditions for an expansion of the mosquito population. To date, more than 25,000 cases of West Nile Virus have been reported across the country and more than 1,000 deaths have been recorded.

And, extreme weather events are increasing with results that are difficult to predict and prepare for. As an example, those of us in the medical community were frustrated and finally ashamed of the response to Hurricane Katrina. Hundreds of people received inadequate or no health care at all. As a result, many unnecessary deaths occurred and hundreds of others were left sick without sanitation or clean water supplies. And, as the public health fallout of Katrina

demonstrated, it is the poor and disadvantaged who are likely to suffer the most. They have more difficulty escaping the heat, are more frequently exposed to the elements and have less access to health care.

As scientists and physicians we must examine the evidence and look for solutions, treatments if you will. Medicine is based on notions of prevention. We devise treatment plans or solutions with an aim of cure. But, those things that we cannot cure we must work to prevent – certainly that is the case with global warming. The medical community supports the assertions of our colleagues who serve on the Intergovernmental Panel on Climate Change. In order to reduce U.S. emissions to an acceptable level, we support mandatory controls on greenhouse gases that will reduce emission levels to the 1990 baseline by the end of the next decade and then lead to an 80 percent reduction by the middle of the century.

In my home state of New Mexico scientists believe that global warming is leading to more heat, less snow and more wildfires. The West has seen larger temperature increases than any other part of the United States. In some areas temperatures have already risen by 2 degrees C over the past century, much more than the average change globally of +0.5 degrees C.

Warming clearly is present in the Southwest. In New Mexico the wildfire season has grown by 78 days during the past three decades. Fire is a significant and costly public health and economic problem. In coming decades further rise in temperature will bring later snows that melt sooner, shrinking the snow pack and stored water. One study predicts that water resources in the Colorado basin will decline by 40 percent in the century.

There is scientific and increasingly social consensus that we must act quickly and definitively to stabilize greenhouse gas pollution and to limit further temperature rise. To date there has been no significant federal action on global warming. As a scientist and physician, as a citizen and as a grandparent I find this inaction unconscionable. We are passing responsibility for global warming to our children and grandchildren. The administration has failed to address global warming, and the Congress should feel an extra sense of responsibility.

Not all government is ineffective. In the absence of a federal response cities and states have taken action. There are now 290 American cities and 27 states working on climate action plans. These actions include efforts to improve the efficiency of our vehicles and our buildings and to expand our use of renewable energy from the wind and the sun.

Finally, the U.S. medical and public health community as you have heard this morning is not prepared for multiple, large scale disasters that will manifest themselves as a result of climate change. Preparedness is a new medical and public health mission for which we are not adequately funded. I would urge the committee to understand that the Centers for Disease Control - and through it state and local health departments - must receive the funds necessary to respond appropriately to the challenges we will face as a result of global warming.

That concludes my testimony, and I will be glad to answer any questions from the committee.