



Protect, Prevent, Live Well

Testimony of Lynn Goldman, MD, MS, MPH
Representing the American Public Health Association
Subcommittee on Energy and Power Hearing on the “Energy Tax Prevention Act of 2011”
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Chairman Whitfield, Ranking member Rush and members of the Subcommittee. My name is Dr. Lynn Goldman. I am Dean of the George Washington University School of Public Health and Health Services and professor of environmental and occupational health. I have been a member the American Public Health Association (APHA) for almost 20 years and I am pleased to represent APHA at today’s hearing regarding Chairman Upton’s draft legislation that would block the U.S. Environmental Protection Agency’s authority to regulate carbon dioxide and other greenhouse gas emissions under the Clean Air Act. APHA is the nation’s oldest and most diverse organization of public health professionals in the world, dedicated to protecting all Americans and their communities from preventable, serious health threats and assuring community-based health promotion and disease prevention activities and preventive health services are universally accessible in the United States.

For 40 years, the Clean Air Act has safeguarded the health of all Americans, including our most vulnerable. By EPA’s estimate, the first 20 years of the Clean Air Act has prevented more than 200,000 premature deaths, 672,000 cases of chronic bronchitis, 843,000 asthma attacks, and 189,000 cardiovascular hospitalizations, making it one of the most successful public health laws of our time. In addition, according to EPA, while the six most common air pollutants decreased by 41 percent between 1990 and 2008, the U.S. Gross Domestic Product increased by 64 percent. All of this does cost money. Most recently the EPA projected that direct costs of compliance with the 1990 Clean Air Act by the year 2020 of \$65 billion but the direct benefits -- \$2 trillion – are much higher. Most of these are from prevention of premature death.

In 2007, the U.S. Supreme Court directed EPA to act on the science and to move forward with efforts to protect the public’s health from the impacts of greenhouse gases which contribute to climate change. APHA opposes this legislation and is calling on members of Congress to reject any attempt to roll back Clean Air Act protections that would limit the agency’s ability to protect public health by reducing greenhouse gas emissions that contribute to climate change. APHA is not alone in its position, and in a December 6, 2010 letter to all members of Congress, APHA was joined by the American Lung Association, the American Academy of Pediatrics, the American College of Preventive Medicine and other leading national and state public health, medical and clean air advocates in urging Congress to “support moving forward with protective clean air standards and to oppose any measure that would delay or block progress toward a healthier tomorrow for all Americans.”

The Problem of Greenhouse Gases

The United States is the leader in contributing to greenhouse gas globally and should also be a leader in solving the problem by reducing our greenhouse gas emissions. Science tells us that to achieve that goal, we must focus on carbon dioxide which is the major component of greenhouse gases, and that the excess carbon dioxide emissions come primarily from coal-burning power plants and vehicle exhaust. Individuals can help to reduce their contribution to global warming by making healthier choices such as walking or biking rather than driving or by eating less meat, but individual action alone will not solve the problem. We must join together to:

- Create and implement environmental policies that will significantly reduce greenhouse gases, in particular reductions in carbon dioxide
- Develop and use new and existing technologies for producing cleaner cars, cleaner electrical generation, and more efficient use of energy in every way possible
- Research, develop and deploy renewable energy sources such as wind, solar, and geothermal.

Climate Change and Health

Climate change is a public health issue and is one of the greatest threats to human health. Scientists from across the globe have stated in the strongest possible terms that the climate is changing and that human activity is to blame. The Intergovernmental Panel on Climate Change (IPCC) has unequivocally concluded that greenhouse gas is causing global warming and the United States is a leading contributor of greenhouse gases globally. This average increase in the Earth's temperature (referred to as global warming) is causing regional weather changes such as more extreme weather events and increases and decreases in temperature and rainfall. These regional weather changes may create environmental conditions (floods, heat waves, drought, poor air quality) that lead to poor health outcomes such as heat stroke, injury, malnutrition, respiratory illness and asthma, and infectious (vector- and rodent- borne) diseases.

Climate change is already dramatically affecting the health of people around the world especially in the developing world. According to the World Health Organization, an estimated 166,000 deaths and about 5.5 million disability-adjusted life years (DALYs, a measure of overall disease burden) were attributable to climate change in 2000. These numbers are staggering, but they should not be surprising: climate change influences the living environment on the most fundamental level, which means it affects the basic biological functions critical to life. It impacts the quality of air breathed, availability of food and drinking water, and the potential for disease to spread.

These impacts are different in different parts of the world — and equally troubling, they are disproportionately burdensome for the world's more vulnerable populations. Children, the elderly, the poor and those with chronic and other health conditions are considered the most vulnerable to the negative health impacts of climate change because they are most susceptible to extreme weather events like heat waves, drought, intense storms and floods. They are also least likely to have the resources to prepare or respond. This unequal burden seems especially unjust

given that these populations are the least likely to contribute substantially to climate change. Any strategies for managing climate change impacts must take the unique challenges and needs of vulnerable populations into account.

A 2009 report by the U.S. Global Change Research Program predicts that climate change will cause adverse health outcomes due to regional changes in weather causing poor environmental conditions in communities around the country. For example:

- In the Midwest and Northeast, major cities such as New York and Chicago could see temperatures that would mean more heat stress and heatstroke. The poor and the elderly would be hit especially hard.
- In the Northwest, heavy rainfall may lead to flooding and overflow of sewage systems, causing an increase in the spread of disease.
- In the southwest, higher temperatures and decreased rain are likely to strain already limited water sources, increasing the likelihood of wildfires and air pollution.
- In the Great Plains, increased temperatures could mean scorching summers and more mild winters - which would significantly hurt food production.
- In the southeast Atlantic and Gulf Coast, hurricanes and other weather events are expected to last longer and be more intense. That would mean bigger storm surges, more damage to buildings and roads, and contaminated food and water.

Extreme weather events that have occurred in the U.S. such as the Chicago heat wave in 1995, Hurricane Katrina, and the recent wild fires in southern California offer good examples of how extreme weather have led to poor environmental conditions and death and disease. Several Alaskan communities are facing real consequences of climate change – mostly associated with increased temperatures - that is resulting in shorter winters and melting ice, which is negatively impacting many aspects of life. In addition as concluded by a recent study, climate change could detrimentally affect air quality (therefore respiratory health) in major urban cities in the U.S.

APHA Policy on Climate Change and Health

APHA first adopted policy about the potential effects of global climate change and in 1995. In 2007, APHA updated its policy to include new information from the fourth IPCC report, which concluded that the warming of the earth is unequivocal and that warming can be attributed to human behavior. APHA's current policy and position on addressing the health impacts of climate change is:

- Based on scientific evidence, the long- term threat of global climate change to health is serious and that greenhouse gas emissions are primarily responsible.

- Policies (such as policies that will reduce greenhouse gas emissions) and actions (choosing alternative modes of transportation) to mitigate and avoid further increases in climate change are critical and a priority.
- Adaptation strategies are necessary to protect health from poor environmental conditions caused by climate change.
- Research is needed to better understand the health impacts of climate change and to develop effective adaptation strategies.
- It is the right of all individuals to be free of serious adverse effects from global climate change - vulnerable populations including individuals living in extreme poverty must be protected.
- As a front line protector and communicator to communities, the public health community plays a key role in helping to mitigate and adapt to climate change. As such the public health community must have the tools, skills, training and education and resources to fulfill this role.

Conclusion

Growing scientific consensus shows us that the climate is changing in ways that increasingly affect the health of people around the world. Because climate influences how people live, breathe and eat as well as the availability of water, populations everywhere, including the United States, may already be experiencing the health impacts of these changes. This is especially true among our most vulnerable populations, children, the elderly and the poor.

We cannot afford to delay or ignore addressing the health impacts of climate change. We strongly urge Congress to oppose any efforts to block EPA from moving forward with regulations to reduce greenhouse gases that contribute to climate change. We appreciate the opportunity to comment on this important public health issue before the Subcommittee and I am happy to answer any questions regarding our position.