

**SUMMARY OF TESTIMONY BY BERNARD D. GOLDSTEIN, MD,
ON THE IMPACT OF GLOBAL CLIMATE CHANGE ON PUBLIC HEALTH**

House Oversight and Reform Subcommittee on Environment

April 30, 2019

On Tuesday, April 30, 2019, the House Oversight and Reform Subcommittee on Environment held a hearing focused on the public health effects of climate change and what actions Congress can take to fight this global threat. EPN member Dr. Bernard Goldstein, Dr. Bernard Goldstein, Former EPA Clean Air Scientific Advisory Committee (CASAC) Chairman (1982-1983) and former member of CASAC Subcommittee on Sulfur (1980-1981) and Nitrogen Oxides (1980-1981); Former EPA Assistant Administrator for Research and Development (1983-1985); Professor Emeritus, Environmental and Occupational Health, University of Pittsburgh; Member, National Academy of Medicine, was asked to provide testimony on the topic.

Dr. Goldstein explained that in public health and preventive medicine, the terms primary, secondary and tertiary prevention are used when addressing health issues. He then applied these terms to global climate change (GCC).

- Primary prevention is avoiding the problem in the first place. We have missed our easiest opportunity for primary prevention of GCC, as it is already occurring. The last five years have been the hottest on record for global temperatures, both air temperatures and ocean temperatures. Dr. Goldstein noted that it would take a textbook to describe all of the adverse public health implications of GCC. Some examples include:
 - Illnesses can be brought on by hotter temperatures. Bacteria grows more quickly in high temperatures and warmer water, particularly in enclosed natural areas in which people swim.
 - Heat itself can cause death, and using fossil fuels for cooling can increase air pollution, including ozone, which causes summertime asthma attacks and perhaps increased mortality.
 - Weather disasters can cause death.
- Secondary prevention consists of early detection and changes to avoid the adverse consequences. For GCC, this means adaptation. Examples include:
 - Rebuilding of American infrastructure;
 - Continued awareness by the US military of the importance of global climate change to their operations;
 - STEM education, which promotes Americans who understand science and are able to think for themselves about the evidence of GCC and its health implications.;
 - Considering Genetically Modified Organisms (GMOs) as possible answers to some of the inherent agriculture and food waste issues brought on by GCC; and
- Finally, tertiary prevention consists of lessening the consequences of a problem already caused by the preventable condition. In terms of GCC, Dr. Goldstein addressed what Congress should do to address this issue:
 - GCC should be considered a major threat to the U.S., worthy of both a comprehensive approach as well as being considered in every congressional action. Congress should:
 - Consider the potential value of nuclear power.
 - Recognize that an increasing global population is a major driver of GCC.
 - Acknowledge the importance of science and technology to provide alternatives to our current wasteful approaches.

In closing, Dr. Goldstein noted that no bill before congress should be immune from asking what it will mean to GCC. Whether considering agriculture or national parks, homeland security or transportation, the impact on GCC should be among the factors that are weighed in all deliberations.