

Cabinet - HHS



DEPARTMENT OF HEALTH & HUMAN SERVICES

Chief of Staff

Washington, D.C. 20201

MEMORANDUM FOR THE HONORABLE TODD STERN

I am responding to your request that DHHS identify upcoming events that would help members of the public to understand the nature and scope of Administration initiatives related to the prospect of global climate change.

Though current climate models are unable to reliably project regional scale changes, it is clear that even small increases in temperatures and other changes in climate conditions could result in a net increase in the geographic distribution of mosquitoes and other disease vectors and thus a substantial expansion of the geographic scope of certain infectious diseases that are normally limited to the tropics. The links between climate change and other health effects are less scientifically firm.

The Department launched a significant initiative on emerging and re-emerging infectious diseases in 1994 and made explicit reference to the linkage to potential climatological and ecological change. This initiative was followed by a Presidential Decision Directive. There are several key conferences scheduled for late September this year -- including one sponsored by an NIH Institute -- at which it may be appropriate for HHS speakers to address the link between climate change and infectious disease. The conferences include:

- ▶ September 17-19: U.S./Mexico/Canada Research Development Conference: Precursors and Consequences of Emerging and Reemerging Infectious Diseases in North America, Bethesda, Md. HHS speakers include Dr. Anthony Fauci, Director, National Institute of Allergy and Infectious Diseases and Dr. John La Montagne, Director of NIAID's Division of Microbiology and Infectious Diseases.
- ▶ September 24-25: Workshop on Climate Change and Disease, Chantilly, VA. Sponsoring organizations are the National Institute of Allergy and Infectious Diseases (NIAID), the American Electrical Power Institute and the Department of Energy. HHS speakers include Dr. John McGowan, Deputy Director, NIAID, Dr. Ken Olden, Director, National Institute of Environmental Health Sciences and Dr. Duane Gubler, Director, Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, Centers for Disease Control.
- ▶ September 23-26: Annual meeting of the Association of State and Territorial Health Officials, Scottsdale, Arizona. Dr. Jim Hughes, Director, National Center for Infectious Disease, will make a presentation.

Over the next several weeks, I will continue to discuss with these speakers how they might address the link between climate change and infectious disease.

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**DEPARTMENT OF HEALTH AND HUMAN SERVICES
GLOBAL CLIMATE CHANGE ACTIVITIES**

Departmental activities directly related to global change include research conducted by NIH and a conference supported by CDC.

As part of the U.S. Global Change Research Program (USGCRP), NIH's National Institute for Environmental Health Sciences (NIEHS) supports a \$4.1 million program in FY97 on the human health effects of exposure to ultraviolet radiation (See Tab A). NIEHS plans to continue supporting high-quality, peer-reviewed research on global change within the context of its overall environmental health research portfolio.

FY98 Program Highlights

- investigate human health effects of exposure to UV radiation;
- investigate human health effects of exposure to air pollution, especially ozone, related to global climate change;
- investigate human health effects of infectious disease with concerns about emerging infectious diseases; and
- investigate human health effects of exposure to agricultural chemicals and other technologies and materials used to adapt to changing climates.

The Department could highlight these research activities as an important component of the USGCRP.

While not part of the USGCRP, the National Center for Infectious Disease is supporting the International Conference on Emerging Infectious Diseases in Atlanta in March, 1998 (See Tab B). The conference will be convened to encourage the scientific exchange of scientific and public health information and highlight programs and activities on emerging infectious diseases. Among the major topics will be global climate change. This could represent an opportunity to highlight Departmental activities in this area.

The Department could highlight the human health effects components of the USGCRP, given the related activities and responsibilities across the Department.

Below are some suggested activities that the Department could undertake to highlight this issue, given additional resources:

1. Workshops, symposia, and conferences to highlight particular issues.
 - UV-induced immunosuppression;
 - contributions of air pollution to childhood asthma;
 - global climate change and the changing ranges of infectious diseases.
2. Secretarial speeches on the need for information and research on potential human health effects of global climate change.

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Department of Health and Human Services/National Institutes of Health



Areas of Global Change Research. National Institutes of Health funding supports research on health effects of CFC replacement chemicals and ultraviolet radiation, including studies in metabolism and toxicity of HCFCs and halogenated hydrocarbons; effects of UV exposure on the pathogenesis of disease and on target organs, especially skin and eyes; repair of solar UV radiation-related DNA damage in human cells; and effects of shorter wavelength UV radiation on photosensitivity in people who use many commonly prescribed drugs.

HHS	Program Title	FY96	FY97	FY98 Request
NIH	Human Health Effects of Exposure to UV Radiation	3.9	4.1	4.3
	Total	3.9	4.1	
	President's Request	4.0	4.0	4.3

NIH National Institutes of Health

FY98 Program Highlights. Research conducted by NIH that is relevant to global change has been an important component of the NIH research agenda for a long time. The potential for increased human exposure to UV radiation, air pollution, infectious diseases, or agricultural chemicals resulting from ozone depletion or climate change serves to heighten the NIH commitment to this broad range of health research, from exploring the biological mechanisms of how disease is initiated and promoted to finding new treatments and technologies to care for people who are ill.

This research could help to reduce the substantial burden on individuals and society imposed by cancer and the need for cataract surgery. From 1973 to 1993, the age-adjusted rate for melanoma in the United States increased from 5.7 to 12.2 per 100,000. More than 1.5 million cataract and more than 800,000 nonmelanoma skin surgeries are performed annually.

Highlights of the FY98 research program include studies to determine how UV radiation-induced immunosuppression and genetic damage contribute to skin cancer in humans and experimental animals; to understand the roles of DNA repair and mutant frequency in cancer susceptibility to UV exposure; and to understand the photobiological mechanisms involved in aging caused by chronic UV damage. Other research projects include the testing of antimalarial drugs in order to determine whether the cutaneous and ocular side effects associated with their use are light-induced, and studies of the photochemistry of all light-absorbing components of the eye in order to determine whether long-term exposure to light contributes to the deterioration of clarity of the lens and functioning of the retina.

Related Research. In addition to research that is designated as part of the USGCRP, NIH conducts research related to other impacts of global change on human health, including the effects of environmental and occupational exposures to air pollution, agricultural chemicals, and materials used in alternative or new technologies to mitigate or adapt to climate change. Exposures of special concern for FY98 include those that contribute to the greatly increased incidence of childhood asthma and that disrupt the normal functioning of the endocrine system. Renewed concern about emerging and reemerging infectious diseases has prompted increased attention to a variety of diseases whose incidence would be affected by environmental change. NIH provides significant resources for research on and development of vaccines and treatment for cholera and vector-borne diseases, such as encephalitis,

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malaria, dengue, and Lyme disease.

Mapping of Budget Request to Appropriations Legislation. In the Departments of Labor, Health and Human Services, and Education and Related Agencies Appropriations Bill, USGCRP activities are funded under the NIH section of Title II-Department of Health and Human Services, within the National Institute of Environmental Health Sciences account.

TAB B

Conference Information:

International Conference on Emerging Infectious Diseases

Marriott Marquis Hotel
Atlanta, Georgia, USA

March 8 - 11, 1998

The International Conference on Emerging Infectious Diseases will be convened to (1) encourage the exchange of scientific and public health information on global emerging infectious disease issues, (2) highlight programs and activities that address emerging infectious disease threats, (3) identify program gaps, (4) increase emerging infectious disease awareness in the public health and scientific communities, and (5) enhance partnerships in addressing emerging infectious diseases.

The meeting will consist of plenary sessions and symposia with invited speakers, presentations of State Health Department emerging infection activities, oral and poster presentations based on the submission of an accepted abstract, and exhibits. Major topics will include current work on surveillance, epidemiology, research, communications and training, and prevention and control of emerging infectious diseases as well as topics related to emergency preparedness and response. Abstracts should address new, reemerging, or drug resistant infectious diseases which affect human health and such topics as foodborne diseases, antimicrobial resistance, infectious diseases transmitted by animals and arthropods, infections acquired in health care settings, infectious diseases in immunodeficient persons, infectious diseases in hard-to-reach and other at-risk populations, infectious causes of chronic diseases, blood safety, host genetics, vaccines, global climate change, and immigration and travel.

Deadline for submission of abstracts is **October 31, 1997**.

Registration will be limited to 2500 participants.

Additional information on abstract submission, registration, and exhibit opportunities can be obtained by sending an email message to meetinginfo@asmusa.org or by calling 202-942-9248. Proceedings of the conference will be published in the *Emerging Infectious Diseases* journal.

 NCID Home Page.

National Center for Infectious Diseases
Centers for Disease Control and Prevention
Atlanta, GA

URL: <http://www.cdc.gov/ncidod/eidann.htm>
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