



# Agent Orange Review

Vol. 2, NO. 3

Information for Veterans Who Served in Vietnam

August 1983

## White House AO Group Oversees Federal Studies

In 1979, the White House established the Interagency Work Group and Science Panel to study the possible long-term health effects of herbicides. In 1981, the group was redesignated the Agent Orange Working Group.

Membership includes representatives from the Department of Health and Human Services, which is the lead agency; White House Office of Policy Development; White House Office of Science and Technology Policy; Office of Management and Budget; Council of Economic Advisors; Department of State; Department of Agriculture; Department of Labor; Veterans Administration; Environmental Protection Agency; and ACTION.

The Agent Orange Working Group is responsible for overseeing federal research projects on Agent Orange and for distributing study findings to the public.

John Svahn, undersecretary of the Department of Health and Human Services, was recently named to head the group.

The group is part of the Cabinet Council on Human Resources.

## Congressional Hearings Held On AO Compensation Bills

During April and July of this year, the House Veterans' Affairs Committee's Subcommittee on Compensation, Pension and Insurance held hearings on H.R. 1961 -- the Vietnam Veterans Agent Orange Relief Act.

The bill would provide presumption of service connection for certain diseases among Vietnam veterans that may be linked to Agent Orange exposure. Under the bill, veterans would be eligible for compensation if they have one of three diseases:

- cancer of some soft-tissue organs such as tendons, fat and muscles;
- porphyria cutanea tarda, a condition that affects the liver and skin; and
- chloracne, a skin disorder that may be severe.

During the April hearings, witnesses stated that although some studies suggest a link between Agent Orange exposure and long-term illness, the medical community as a whole does not support that contention.

VA witnesses, including Administrator Harry Walters, VA Chief Medical Director Donald Custis and Chief Benefits Director Dorothy Starbuck, cited a wide range of research currently seeking medical conclusions to the complex Agent Orange issue.

Administrator Walters said: "I have an obligation to safeguard this nation's compensation program for service-disabled veterans and the survivors of those who gave their lives for their country.

## About the "Review"...

"Agent Orange Review" is prepared by VA's Office of Public and Consumer Affairs. The "Review" is published periodically throughout the year as part of VA's expanded program to provide information on Agent Orange to concerned veterans and their families.

This issue contains information on:

- Congressional hearings on Agent Orange presumptive compensation bills;
- White House Agent Orange Working Group; and
- An update on Agent Orange studies, including a table of studies in progress.

For additional copies of this issue, write VA's Office of Public and Consumer Affairs (064), 810 Vermont Ave. NW, Washington, DC 20420.

If you have any questions about your Agent Orange examination, contact the environmental physician at the VA medical center where you had the examination.

If you have questions about VA benefits or Agent Orange, contact the VA facility nearest you. The phone number can be found in your telephone book under "U.S. Government" listings.

If you would like to be added to the mailing list to receive the "Review," please send your name, complete address and social security number (if you are a veteran) to the VA Data Processing Center (200/392), 1615 E. Woodward St., Austin, TX 78772, Attn: Agent Orange Clerk. Changes of address should be forwarded to the same Austin address, *along with your mailing label.*

The existence of a causal connection between disabilities and military service to the nation is the fundamental precept of the compensation system. Should H.R. 1961 become law, the basic premise of the program would be fundamentally changed and its continued viability jeopardized."

Walters added that if a consensus of the medical community finds with reasonable medical certainty that Agent Orange exposure causes disabilities, he will ensure that veterans are fairly compensated for these disabilities.

The American Legion, Veterans of Foreign Wars, Vietnam Veterans of America and other groups expressed their support for enactment of H.R. 1961. In testimony during the April hearing, representatives of some of these groups said that sufficient evidence exists to connect the three medical disorders to herbicide exposure.

The Disabled American Veterans and the Paralyzed Veterans of America (PVA), however, opposed the bill.

*(See Hearings, page 4)*



# Agent Orange Research Update

## Air Force Health Study

The Air Force presented to a congressional committee additional data on the mortality portion of their study on Ranch Hand personnel who were involved in herbicide spraying missions in Vietnam.

As of September 1, 1982, there were 67 documented deaths in the Ranch Hand group. The causes of death include: 22 killed in action; 18 accidental; 2 suicides; 1 homicide; 3 malignant tumors; 1 endocrine, nutritional, metabolic and immunity disorder; 14 circulatory diseases; and 5 digestive system diseases.

For this same period, there were 235 deaths among the comparison subjects. The large number of deaths among the comparison group is a result of the study design's one-to-five ratio for Ranch Hand personnel to comparison subject. The causes of death for the comparison group include: 91 accidental; 12 suicides; 3 homicides; 34 malignant tumors; 2 tumors (malignancy uncertain); 1 endocrine, nutritional, metabolic and immunity disorder; 68 circulatory diseases; 11 digestive system diseases; 3 infectious and parasitic diseases; 1 nervous system and sensory organ disorder; 4 respiratory diseases; 2 genito-urinary system conditions; and 2 ill-defined conditions.

No statistically significant differences in the death rates were found between the Ranch Hand and the comparison group.

The overall survival pattern of the Ranch Hand and the comparison group was contrasted to the vital statistics for the 1978 U.S. white male population. Both the Ranch Hand and comparison group had a significantly lower mortality rate than U.S. white males of the same age. This is an epidemiological phenomenon called the "healthy worker effect." This effect is due, in part, to the selection of healthy individuals for entry into the Armed Forces as well as the availability of health care throughout their careers and retirement.

The mortality analysis will be an ongoing process. Additional data on the mortality phase of the study will be issued periodically.

Reports on data obtained from the questionnaires and physical examinations are now expected to be released to the public in the fall of 1983.

## NIOSH Birth Defects Study

In November 1979, the National Institute for Occupational Safety and Health (NIOSH) was asked by employees working for the Long Island Railroad to conduct a Health Hazard Evaluation.

The employees were maintenance workers who came in contact with 2,4,5-trichlorophenoxy-acetic acid (2,4,5-T), a herbicide contaminated with dioxin that was used for weed control along the railroad tracks. The workers -- members of Teamsters' Union Local 808 -- were concerned that there may have been an excess number of birth defects among their children and that 2,4,5-T was the cause.

As a result of the investigation, NIOSH concluded that there was no excess of major birth defects present in the Long Island Railroad workers' children.

Approximately 800 Long Island Railroad employees work on track maintenance and could have had contact with a variety of herbicides used for weed control, including 2,4,5-T. Each worker was potentially exposed to several chemical agents.

NIOSH began an investigation to determine whether there was such an excess of birth defects among the workers' children and whether the cause could be attributed to herbicides.

NIOSH obtained a list of 170 children born to union members from 1973 to 1979. These dates were chosen because spraying for weed control with 2,4,5-T had occurred in 1974 through 1976. Other herbicides were used before then, as well as during 2,4,5-T spraying, and for a three-year period afterward.

NIOSH also obtained medical insurance claims for the children of these workers, and the claims were reviewed by a physician.

All problems that could have been congenitally related and that were diagnosed during the infant's first year of life were extracted.

From this total list of birth defects, all "major" defects -- as defined by the Centers for Disease Control and the Perinatal Collaborative Project -- were identified.

Comparative data for the total number of major birth defects and for all other defects that occurred more than once in the study population were obtained. With this information, NIOSH attempted to determine if an excess of any particular problem existed.

Forty-two of the children had at least one non-infectious health problem during the first year of life, as noted on an insurance claim. Three were classified as "major" birth defects.

The remainder were medically classified as "minor" and are not recognized as congenital problems.

## NCI Soft-Tissue Sarcoma Study

The National Cancer Institute is currently conducting a case-control study to determine whether there is an association between herbicide exposure and the incidence of soft-tissue sarcomas (a group of malignant tumors) and lymphomas (certain tumors that are usually malignant).

The study is being conducted in Kansas because of the agricultural practices among farmers who apply phenoxy herbicides to wheat fields without applying insecticides. Cases are being obtained through the Kansas Tumor Registry. Cases and controls will be matched by age, sex and county of residence.

Data collection should be completed by October 1983. A report on study findings is expected to be available in 1984.

Additional studies are being conducted in Minnesota and Iowa where farmers generally apply insecticides to corn and other crops at the same time they apply herbicides. A similar case-control method is being used in these areas to compare pesticide exposures in general between leukemia and lymphoma cases and suitable controls.

Although information will be obtained on herbicide use, researchers expect that it may be impossible to separate any likely associations between exposure to insecticides and exposure to herbicides.

Results of the Minnesota and Iowa studies may be available in 1984.

## Dioxins and Furans in Adipose Tissue

VA conducted a small feasibility study in 1979-1980 to determine whether levels of dioxin in adipose tissue (or fat) of U.S. males could be measured. Three groups of adult males took part in the study:

Twenty Vietnam veterans who volunteered for the study and who claimed to have health problems they believed were related to Agent Orange exposure;

Three Air Force officers who had recently been heavily exposed to dioxin in connection with laboratory experiments; and

Ten veterans who volunteered for the study and who had no Vietnam service or known exposure to herbicides.

The study showed that it was possible to detect and measure dioxin in adipose tissue removed from some of the Vietnam veterans as well as some of the non-Vietnam veterans. The study also showed, however, that there was no clear relationship between dioxin levels and Vietnam service, Agent Orange exposure or the

(See **Research**, page 4)

# AGENT ORANGE STUDIES IN PROGRESS

ACTIVITY	AGENCY	DESCRIPTION	PROJECTED COMPLETION DATE <sup>a</sup>
Vietnam Veteran Mortality Study	Veterans Administration	To compare mortality patterns and specific causes of death between those veterans who served in Vietnam and those veterans without Vietnam service	Late 1984
Vietnam Veteran Identical Twin Study	Veterans Administration	To compare mental and physical health status of identical twin veterans, one who served in Vietnam and one who did not	1986
Survey of Patient Treatment File	Veterans Administration	To identify morbidity patterns among Vietnam veterans from VA in-patient files	Initial 1983
Retrospective Study of Dioxins and Furans in Adipose Tissue	Veterans Administration	To devise a method for determining levels of dioxins and furans in adipose tissue of Vietnam-era veterans from samples in EPA's Survey of Human Adipose Tissue, to identify Vietnam veterans among the tissue samples and to analyze samples	1985
Case-Control Study of Soft-Tissue Sarcoma	Veterans Administration & Armed Forces Institute of Pathology	To determine whether Vietnam service, Agent Orange exposure and other factors increase the risk of soft-tissue sarcoma	1985
Epidemiological Study of Ground Troops Exposed to Agent Orange	Department of Health & Human Services, Centers for Disease Control	To evaluate possible long-term health effects of Agent Orange exposure on ground troops in Vietnam and to assess possible health effects of Vietnam service; 30,000 veterans expected to participate	1987
Birth Defects and Military Service in Vietnam	Department of Health & Human Services, Centers for Disease Control	To determine possible association between Vietnam service and subsequent fathering of congenitally malformed children; based on Birth Defects Registry in Atlanta area which includes families of approx. 5,400 case babies and 3,000 control babies	Early 1984
Soft-tissue Sarcoma Investigation	National Institute for Occupational Safety & Health	To study tissues from seven cases of soft-tissue sarcoma in U.S. (4 who had been exposed to dioxin and 3 who may have been) in order to identify patterns of cancer that may be unique among those exposed to dioxin	Indefinite
Investigation of Leukemia in Madison County, Ky.	National Institute for Occupational Safety & Health	To determine possible association between cases of leukemia and exposure to wood ammunition boxes treated with hexadioxins	Fall 1983
Dioxin Registry	National Institute for Occupational Safety & Health	To analyze causes of death among workers at 12 production sites where dioxin-containing products were manufactured	1985
International Registry of Persons Exposed to Phenoxy Acid Herbicides & Contaminants	National Institute of Environmental Health Sciences, with International Agency for Research on Cancer	To establish an international registry of workers in some 20 plants where phenoxy acid herbicides were manufactured; mortality study planned when enough workers have been added to registry	Indefinite
Case-Control Study of Lymphoma and Soft-Tissue Sarcoma	National Cancer Institute	To compare herbicide exposure among cases of soft-tissue sarcoma and lymphoma with controls of the same age, sex and Kansas county of residence	1984
Air Force Health Study	Department of Defense	To compare mortality and morbidity of Air Force personnel involved in Agent Orange spraying in Vietnam with a group of Air Force personnel who were not exposed to the herbicide	Baseline 1983 Complete 1999
AFIP Registry of Vietnam Veteran Biopsy Tissue	Armed Forces Institute of Pathology	To determine disease patterns in biopsy tissue from Vietnam veterans; 1,200 specimens thus far show no unusual patterns, especially of cancer	Indefinite

<sup>a</sup>Note: Dates listed are expected completion dates only. These dates may change as a result of unforeseen delays in locating individuals or collecting data, for example.

## VA Monograph Series Underway

VA has initiated a series of monographs designed to provide useful scientific information on environmental factors that have or may have had an impact on the health of military personnel serving in Vietnam.

The subjects that will be covered in the series for fiscal year 1983 include birth defects, genetic screening and counseling; human exposure to herbicides; Agent Blue (cacodylic acid); and chloracne.

The monographs will be authored by internationally recognized experts and will be a source of valuable scientific information to VA environmental physicians, researchers and other members of the scientific community.

The four monographs are expected to be published and available for distribution in late 1984.

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### (Hearings, from page 1)

PVA's representative testified that although they support compensation for diseases and injuries incurred while serving the United States, the presumption of service-connected disabilities "must be related to sound, reasonable medical evidence that such a connection exists." PVA asserted that the diseases listed in H.R. 1961 "do not meet this test."

In June, the Senate Committee on Veterans' Affairs held two days of hearings on Agent Orange-related matters.

During the first session, the committee heard testimony on the current status of federal Agent Orange research projects, the current state of knowledge on the possible health effects of Agent Orange exposure and a report on treatment for Vietnam veterans provided under Public Law 97-72 -- the Veterans' Health Care, Training and Small Business Loan Act of 1981.

At the second session, testimony was presented on legislation before the committee:

- S. 374 -- a bill that would provide presumption of service connection for the occurrence of certain diseases in veterans exposed to phenoxy herbicides while in Vietnam;
- S. 786 -- a bill that would establish a service connection presumption for certain diseases caused by exposure to herbicides or other environmental hazards or conditions in veterans who served in Southeast Asia during the Vietnam era; and

- S. 991 -- a bill that would require regulations providing for the resolution of Veterans Administration benefit claims based on certain exposures to herbicides containing dioxin, to ionizing radiation from detonations of nuclear devices and to certain other hazardous substances.

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### (Research, from page 2)

current health status of the veterans in the study. Nothing at the time was known about dioxin levels in the general U.S. population.

Since the feasibility study was completed, VA and the Environmental Protection Agency (EPA) have entered into an interagency agreement to study the levels of dioxin in adipose tissue from a selected group of men in the Vietnam-era age bracket.

EPA has been collecting fat samples for its National Human Adipose Tissue Study since 1970. These samples from the general population were analyzed for residues of selected pesticides and toxic chemicals.

Additional samples are still available for analysis, including tissue samples of 555 males born between 1937 and 1952. Many had served in the military during the Vietnam era and some had served in Vietnam when Agent Orange was sprayed.

The VA study -- referred to as a Retrospective Study of Dioxins and Furans in Adipose Tissue -- will use the samples from these 555 men and will attempt to measure dioxin levels in the samples. The study should establish data on dioxin levels in the U.S. male population and should indicate whether military service, especially in Vietnam, has had an effect on dioxin levels in adipose tissue.

The study will be conducted in three phases.

In Phase I, the names and social security numbers of the 555 males will be obtained. Work has already begun on gathering the information in order to determine military status.

Phase II will be the development of methods for determining levels of dioxins and furans in adipose tissue. A method for analyzing the tissue was reviewed by 29 representatives of the scientific community (government, academic and private sector) in April 1983.

Phase III will involve the analysis of the adipose tissue and preparation of the final report.

Phases I and II should be completed within calendar year 1983. The final report should be available in 1985.

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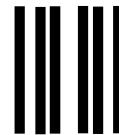
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