

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333

May 30, 1980

CDC - Mount St. Helens Volcano Health Report #1

This surveillance report is the first in a series to be issued on a frequent and timely basis as information becomes available on the health aspects of the volcanic eruption. Information for this report will represent the latest data reported to the CDC Chronic Diseases Division, Bureau of Epidemiology, from state health departments, CDC personnel, Federal agencies, and other pertinent sources. We hope thereby to establish a focal point for the accumulation and dissemination of data related to public health aspects of the disaster. Much of the information will be preliminary in nature and subject to confirmation and change. It will be distributed for the purpose of providing up-to-date health data from CDC and the many other groups involved in public health assessment.

The Mount St. Helens Technical Information Network (MSHTIN) in Vancouver, Washington, has been established through the Federal Emergency Management Agency (FEMA), the U.S. Geological Survey, and the State of Washington Department of Emergency Services for the coordination of data from Federal and other sources. These health reports will therefore be coordinated with the MSHTIN (Federal Coordinating Office, 1220 Main Street, 3rd Floor, Vancouver, Washington 98660, telephone (206) 696-7818).

On Wednesday, May 21, 1980, CDC responded to a request by the Washington State Department of Social and Health Services to assist in an epidemiologic evaluation of health effects related to eruption of the volcano. A team of CDC personnel from the Bureau of Epidemiology, Atlanta, and the National Institute for Occupational Safety and Health (NIOSH), Morgantown, West Virginia, has been in the State of Washington since then. A rapidly instituted hospital-based surveillance network in affected portions of Washington, Idaho, Montana, and Oregon, established with the cooperation of state health departments, suggests instances of mucous membrane and upper respiratory irritation but no evidence of increased severe respiratory irritation illness related to the dust exposure.

However, because of the extraordinarily high levels of total suspended particulates in air, uncertainty concerning continued activity of the volcano, and persistence of the ash in the environment, there is need for increased surveillance of public health aspects of this disaster.

The CDC effort includes the following: 1) Review of air monitoring data and analysis of ash--CDC will review air monitoring data from EPA and other sources as they relate to community health, and through NIOSH, Morgantown, will conduct sampling related to high-risk occupationally exposed groups (e.g., cleanup workers). CDC personnel have arranged for collection and analysis of ash for silicon content, particle size distribution, and proportions of free silica and its various crystalline forms to determine if a potential exists for a long-term hazard from the industrial disease silicosis. 2) Surveillance for health effects in segments of the general population. 3) Surveillance of certain high-risk groups such as people with pre-existing

respiratory conditions and workers involved in the cleanup process. A registry of these high-risk individuals is currently being developed. 4) Dissemination of information--these health reports will be issued to state health officers, Federal and state programs, and physicians and others with need of this information. To be added to the mailing list, please contact:

Center for Disease Control
Attn: Mount St. Helens Volcano Health Reports Unit
Chronic Diseases Division
Atlanta, GA 30333
or (404) 452-4086 or 4088

In accord with the expanded surveillance and monitoring activities, additional CDC personnel, including a pulmonary physician and public health advisors from the Tuberculosis Control Division, and industrial hygienists from NIOSH, Morgantown, are being assigned to augment the CDC field staff.

PRELIMINARY RESULTS: First analyses have been completed at NIOSH laboratories in Cincinnati on settled dust collected in Spokane, Washington, and these varied preliminary findings show a low concentration of free silica with the cristobalite content of the total dust about 5 percent. Analysis of the dust for levels of 30 trace metals showed no excessive elevations for any of the elements tested. NIOSH, Morgantown, is also conducting a battery of short-term biological assays from settled dust samples in Spokane. More complete details of these analyses and of additional testing being conducted by NIOSH and other laboratories will be available in the next report. We caution that these preliminary results be treated as such until further confirmation is available.

NIOSH industrial hygienists early in the first week of June will be collecting additional samples in a number of communities in the plume paths of the two eruptions. At this point, plans are to sample in the vicinity of Moses Lake, Yakima, and Spokane in the path of the first plume and Longview and Centralia in the path of the second plume.

The initial CDC hospital-based surveillance network includes 21 hospitals in Washington, 15 in Idaho, 7 in Montana, 6 in Oregon, and 2 clinics (the Yakima Valley Farm Workers Clinic and the Migrant Workers Health Clinic in Othello, Washington). The initial CDC impression of lack of severe dust-related acute respiratory disease, based on daily contact with the hospitals, was in agreement with opinion expressed at a meeting of the statewide Washington Lung Association on May 28, 1980.

Henry Falk, M.D., Roy Ing, M.D., Jean French, Ph. D., Chronic Diseases Division, Clark W. Heath, Jr., M.D., Director, Chronic Diseases Division, CDC, Atlanta, Georgia. James A. Merchant, M.D., Division of Respiratory Disease Studies, NIOSH, CDC, Morgantown, West Virginia.