



## Memorandum

Date July 31, 1983

From Dracunculiasis Group, CDC

Subject **GUINEAWORM WRAP-UP #3 July, 1983**

To Addressees

Proposals for Study of Temephos Efficacy Solicited

Limited funds are available for a study of the relative efficacies of different formulations of temephos (Abate) for killing Cyclops in the field. Comparisons of the efficacies of concentrated emulsions and one percent sand-granule formulations are especially desired.

Interested investigators should contact Dr. Norman Gratz, Director, Division of Vector Biology and Control, World Health Organization, 1211 Geneva 27, Switzerland, as soon as possible. Initial communications should include a one-or-two page description of possible sites for the work, and comments on what evaluation methods are contemplated.

Dracunculiasis Meeting Scheduled in Nigeria

WHO and Ministry of Health officials, in Nigeria, are planning a national meeting on dracunculiasis in late 1983.

Workshop on Opportunities for Control of Dracunculiasis

This workshop was convened by the United States National Research Council's Board on Science and Technology for International Development, in Washington D.C., 16 to 19 June 1982, in collaboration with the World Health Organization, with funding from the United States Agency for International Development.

About 30 experts in parasitic diseases, vector biology, epidemiology, communicable disease control, health education, and sanitary engineering attended.

The objectives of the workshop were to review current knowledge regarding dracunculiasis, its epidemiology, surveillance, control and economic effects; to review alternative methods of control, including special emphasis on cost-effectiveness; to assess the economic, social, and administrative feasibility of mounting guineaworm control efforts in conjunction with primary health care and water and sanitation projects; to identify basic, field, and operational research needed to develop, implement, and evaluate control activities.

A report on the workshop is available on request from the Board on Science and Technology for International Development, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418, U.S.A.

Socio-economic Importance of Dracunculiasis in Upper Volta

Researchers from the Centre Muraz, with funding from the AID-financed project, "Strengthening Health Service Delivery Systems" (SHDS), and with assistance from the CDC epidemiologist assigned to L'Organisation de Coordination Et Cooperation Pour La Lutte Contre Les Grandes Endemies (OCCGE), have described the epidemiology of guineaworm disease in a region (203 villages and 175,000 inhabitants) near Bobo Dioulasso in Upper Volta.

The socio-economic importance of the disease was demonstrated by analysis of data from three heavily-infected villages. Of the entire population, 47 percent of those in the 16-to-45-years age group had been infected the previous year. Ninety percent of the infections occurred during the rainy season. An average of 17 work days per person were lost; 44 percent of the persons affected lost more than 10 work days.

Immunodiagnostic Test for Early Stages of Dracunculiasis

M.M. Kliks, Ph.D., University of Hawaii at Manoa, advises of his having been awarded an Indo-American Fellowship to the National Institute for Communicable Diseases in New Delhi, and invites correspondence with other researchers of immunodiagnostic methods and general immunology of this disease.

The purpose of the work will be to develop an immunodiagnostic test for the early detection of dracunculiasis. Beginning late in 1983, this work is to be funded through the National Science Foundation and the Smithsonian Institute, and administered by the Council for International Exchange of Scholars.

SURVEILLANCEDracunculiasis in Pakistan.

According to recent information, there is dracunculiasis throughout the largest province (The Punjab, population 47 million persons) of Pakistan, and perhaps in other provinces. The Punjabi records show more than 14,000 cases were reported in 1980.

Dracunculiasis in Uganda 1983: Relationship to Safe Water Projects

The epidemiology of dracunculiasis, and compatible methods by which dracunculiasis distribution could be monitored to produce information for a number of purposes have been described. Advantages, disadvantages, and reliabilities of the methods as revealed by actual experience in Uganda have been observed and reported. The distribution and epidemiology of the disease in Uganda have emerged from actual application of the various methods; recommendations with respect to using the incidence of dracunculiasis to reflect changes brought about by water programs in Uganda have been offered. Ugandan areas in which dracunculiasis is either endemic, probably endemic, epidemic, or sporadic have been defined. When a report on this work, which was under-

taken on behalf of UNICEF/Uganda, becomes available, its source will be announced.

#### CONSULTATION

UNICEF in Nigeria has asked CDC to provide a consultant later this year to help develop ways to evaluate the effect of UNICEF-assisted, drinking water projects on the incidence of dracunculiasis in Nigeria.

#### RECENT PUBLICATIONS

Adeniyi, Joshua D., and W.R. Brieger. 1983. Guineaworm control in Idere. World Health April-May, 1983

The efforts and successful results of a program to motivate a rural community in Nigeria to deal with the guineaworm problem are described. Volunteer health workers so effectively informed the people of the need for better wells and improved environment, that within 3 years the level of infection dropped by between 30 and 70 percent.

Edungbola, L.D. 1983. Babana Parasitic Diseases Project. II. Prevalence and impact of dracontiasis in Babana District, Kwara State, Nigeria. Transactions of the Royal Society of Tropical Medicine and Hygiene, Vol. 77, No. 3, 310-315. 1983

An epidemiological survey in Babana district revealed that of 669 subjects examined in 3 communities, 55% were infected. Eighty-five percent of those infected had multiple infections; severe incapacitation reached 55%; 70% of economically productive adults were disabled.

Among 190 children under 10 years of age, the infection rate was 38%, among 479 older subjects it was 61%. Fifty-seven percent of all males examined and 53% of all female counterparts were infected. The infection rate among the Bocos was significantly higher than among the cattle Fulanis; that of the non-indigenes (Hausa, Yorubas, and Agatus) were statistically comparable to that of the Bocos.

The impacts of dracunculiasis on the local social, economic, religious, and political situations are discussed.

Talwalker, V.C. 1983. Guineaworm: Send in the Fish. The Lancet February 12, 1983.

Successful use of Gambusia fish in the water supply of a village of 1,800 has reduced incidence of dracunculiasis from 600 persons (an average of 4 sites per patient) in May, 1978, to 30 persons in May of 1979. Gambusia fish were used again and incidence in May 1980 fell to zero. Although Gambusia fish were not used a third time, there was no recurrence of dracunculiasis in 1981.