MOSQUITO-BORNE DISEASE CONTROL IN THE WESTERN PACIFIC REGION[1]

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1. MALARIA

Of 33 countries and territories in the Region, 14 with a total population of about 4.5 million in the South Pacific never had malaria because vectors are absent. Malaria has been eradicated from Australia, Brunei, Hongkong, Japan, Macao, Singapore, and Taiwan (a total population of about 26 million). Malaria eradication programs are being undertaken in Peninsular Malaysia, Philippines, and Solomon Islands, where an estimated population of 22 million lives in originally malarious areas. In the remaining countries and territories, malaria control programs are in operation.

DDT indoor spraying is the main control method, and the important vectors are still susceptible to this insecticide. No other alternatives for vector control have been employed except in a few antimalaria projects with larvivorous fish used on a limited scale.

Development of better antimalarials, vaccines and biological/genetic control methods is necessary.

2. FILARIASIS

Lymphatic filariasis is prevalent, particularly in the South Pacific. About 40 mosquito species are involved as vectors.

Drugs alone have been used for filariasis control. No large-scale program of vector control has been undertaken. Field trials with fungi (*Coelomomyces* spp.) are being undertaken in the South Pacific for *Aedes* larval control.

Research is underway in Samoa to find out whether transmissions occur at its present low level of microfilaremia after 2 rounds of mass drug administration and what feasible measures exist for vector control.

3. DENGUE/DENGUE HAEMORRHAGIC FEVER

Outbreaks occurred recently in many areas, such as Malaysia, Philippines, Singapore, the South Pacific and Vietnam. Over 14,000 cases with 1,000 deaths were reported in 1973 in South Vietnam, and over 15,000 cases in 1975 in Fiji.

Aedes aegypti is mainly associated with the outbreaks. Basic sanitation supplemented with Abate 1% SG at 1 ppm is the fundamental measure for *Aedes* larval control. For stopping epidemics, ULV spraying with malathion or fenitrothion from the air and/or on the ground is carried out.

4. JAPANESE ENCEPHALITIS

It is highly endemic in the Republic of Korea, but sporadic cases have been found also in other countries. *Culex tritaeniorhynchus* is the main vector. ULV aerial spraying with malathion was undertaken in Korea for epidemic control, yielding some encouraging results. Mouse-brain vaccines have been employed particularly for children in Japan, Korea, and Taiwan.

EDITOR'S NOTE: This is an abstract of a paper presented by Dr. Chow. He was formerly Regional Advisor on Vector Biology and Control, World Health Organization, Western Pacific Region.