

WORLD HEALTH
ORGANIZATION

Interim Commission

ORGANISATION MONDIALE
DE LA SANTÉ

Commission Intérimaire

WHO.IC/Mal.24 ✓

27 April 1948.

EXPERT COMMITTEE ON MALARIA

The Secretary of the Expert Committee on Malaria has the honour to communicate herewith, for the information of the Members of the Committee, a

MEMORANDUMCONTAINING CERTAIN SUGGESTIONS

✓

ON THE ASSISTANCE WHICH THE WHO MIGHT AGREE
TO PROVIDE IN CASE SUCH ASSISTANCE WERE REQUESTED BY GOVERNMENTS
OF MALARIOUS COUNTRIES

By Prof. M. CIUCA.

Agricultural countries in which malaria is rife pay a heavy toll to that medico-social scourge, particularly from the standpoints of (1) loss of human life, (2) loss of working days, which at the height of the agricultural season amount to a minimum of 30 days for every untreated patient, and (3) a considerable loss of physical strength.

The outbreak of epidemics, added to the endemic state, has always and in all malarious countries throughout the world caused thousands of deaths and a standstill of economic life. For example, in the Punjab in 1906 there were 300,000 deaths out of a population of 20 millions; the USSR was ravaged by a malaria pandemic in 1923; the Ceylon epidemic (1934-1935) caused 80,000 deaths (GILL) out of a population of 5,300,000; in Tulcea, Rumania, a *P. falciparum* epidemic occurred, which caused 77 deaths from malaria out of a total of 1307 deaths from all diseases (1945); while there were 150 deaths from malaria out of a total of 1524 deaths from all diseases during 1946, etc.

Obviously, any international plan for agricultural and economic production in the vast malarious areas throughout the world should be headed by the following item:

Comprehensive plan for malaria control.

In this connection it should never be overlooked that, of all avoidable diseases, malaria is that which causes the greatest economic losses; and the cost of the campaign for malaria control should be assessed in terms of the benefits to be derived from a flourishing agricultural production which can only be achieved with the aid of a population free of that disease. To recall once more the close connection between malaria and decreased production, famine and misery would be to state a truism; only anti-malarial action can break the vicious circle.

The solidarity of peoples in the field of economics and production should have as its corollary equal solidarity in the question of malaria control, under the auspices of the WHO. The problem is a particularly grave one for malarious countries which are poor and do not produce anti-malaria drugs. Left to themselves, such countries, which cannot fight the evil by themselves, will never be able to eradicate malaria; they will, therefore, form a permanent reservoir of infection extending also to neighbouring countries that were free of it or may have eradicated it.

International Plan for Malaria Control

The WHO's Share

I. Thanks to the anti-malaria work of the Health Organization of the League of Nations and especially to its international courses in malariology organized in Europe and at Singapore, the vast majority of malarious countries now possess the necessary malariologists for the training of specialized staff.

The WHO's aid to any Governments asking for it, should above all take the following forms:

- (a) Missions of experts in connection with new epidemiological or organizational aspects concerning local problems and most particularly in case of sudden large-scale epidemics;
- (b) Fellowships and training grants of varying duration (according to the subject to be studied), for young malariologists, entomologists and sanitary engineers, to study in the field and in detail the application of anti-malarial and organizational methods;
- (c) Subsidies for 'co-ordinated research work' on subjects suggested by the WHO Expert Committee on Malaria or by its regional Commissions or a group of malaria experts. Experimental, laboratory, clinical and field research, as well as research into the new antimalarials or new methods for their use,
- (d) Facilities for obtaining the laboratory and demonstration equipment required for teaching and for 'anti-malaria centres';
- (e) Constant exchange of documentation (epidemiology, parasitology, entomology, organization, etc.), and of information concerning the results achieved by methods used in the countries that are the most advanced in the matter of malaria control;
- (f) Facilities for payment for anti-malaria products (medicaments and insecticides) through the international economic and financial body of the United Nations.

II. Thanks to the present state of our knowledge of chemotherapy and means of disanophilization with the aid of residual insecticides, the eradication of this disease is now merely a matter of (1) well trained specialized personnel; (2) sufficient material for the campaign (natural and synthetic anti-malaria preparations; anophelicide substances with residual action, adequate equipment).

Close co-operation between malarious countries and countries manufacturing anti-malaria products, under the auspices of the Economic and Social Council of the United Nations, seems to us of the utmost importance in order to achieve an adequate production of active substances leading to a considerable reduction in the cost of malaria control.

III. International Conference on Anti-Malaria Products.

The documentation required for a Conference on anti-malaria products could be quickly collected by means of a questionnaire to be completed by national health administrations and economic departments and dealing with the following points:-

- A. Malaria statistics for the past five years; nature of local endemicity.
- B. Schizonticidal and gametocidal preparations.
 - (1) Amount required annually for treatment and possibly also for chemo-prophylaxis among human communities living in hyper-endemic areas and groups who reside there temporarily (colonies, public works, special crops, etc.).
 - (2) Local production capacity (i) of quinine salts and of total alkaloids; (ii) acridin derivatives of the atebtrin type and equivalents: acriquine, mepacrin, quinacrin, italquine, etc.; (iii) derivatives of quinoline: plasmoquine, praequine and their equivalents: plasmocide, pamaquine, pentaquine, chloroquine, etc.
 - (3) Possibility (for producer nations) to increase such production, in view of their own requirements and those of other non-producer malarious countries.
 - (4) Cost of imported products (for non-producer nations) for mass malaria control; supply difficulties of any kind.
- C. Anophelicide substances with residual action.
 - (1) Local mass production possibilities: DDT, Neocide, Gesarol and its equivalents, gammexane and its equivalents. Indications as to the preparation that can be made, on the basis of material available.
 - (2) Is the present production sufficient for the country's needs? Possible difficulties in connection with production; suggestions for remedying these.
 - (3) Present cost of insecticide used.
 - (4) Cost of the disanophelization method calculated for a surface of 10 square metres, with: (a) a preparation manufactured locally; (b) an imported preparation.