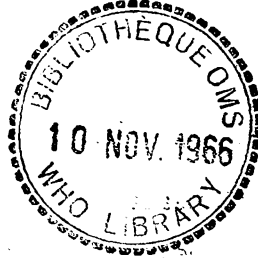


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MALARIA IN THE UNION OF SOCIALIST SOVIET REPUBLICS  
AND PLANNING MEASURES OF MALARIA PROPHYLAXIS

by

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From most of the Union of Socialist Soviet Republics malaria was practically eliminated by 1960. While in 1959 there were 3169 cases, in 1960 only 425 cases of malaria were registered. During the following five years the number of registered cases of malaria varied between 300 and 500 per annum, but the structure of incidence changed considerably. The number of cases of malaria imported from outside the country increased greatly. Cases of malaria were registered only in a few areas and particularly in the Azerbaidjan Republic (see Table 1). However, every year cases of malaria were reported related to blood transfusion, or haemotherapy. During the period 1960/65 there were 54 such cases, 48 being due to quartan malaria. (Sergiev et al. 1966)

In 1965 the number of cases of malaria registered in the USSR was 315 and further surveys of the population have shown the presence of 77 parasite carriers without any clinical symptoms. Out of these 392 cases, 231 (59%) were imported from outside the country. (Sergiev et al. 1966) According to preliminary data obtained for the first half of 1966 there were 112 cases of malaria including 104 clinical cases and eight symptomless parasite carriers.

The persistence of malaria transmission and the presence of local foci in the Kura-Araksin depression of the Azerbaidjan Republic were related to the striking increase of the breeding areas suitable for Anopheles, due to floods and to the

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absence of timely antimalarial measures in spite of worsening epidemiological conditions. Intensive antimalarial measures which were eventually carried out greatly decreased the malaria incidence, but nevertheless in 1965 there were 55 cases of new malaria infections.

Over the whole territory of the USSR the chemoprophylactic and sanitary prophylactic units, supervised by epidemiological services, carry out appropriate antimalarial measures. Among these the most important are epidemiological surveillance of the population, early detection of clinical cases and parasite carriers, and their radical treatment. Entomological studies related to the anopheline density and proper antimosquito measures are also carried out, especially in areas where there are population movements. Reduction of breeding places is carried out and much attention is also paid to the prevention of formation of new breeding places of Anopheles. Greatly increased antimalarial measures are carried out in malarious foci. Appropriate measures are being undertaken to prevent the importation of cases of malaria from outside the country and especially for prevention of malaria infection in Soviet citizens during their stay in tropical countries, or its development on their return to the USSR.

In view of the fact that in the vast majority of areas in the whole of the territory of the Soviet Union no cases of malaria have been recorded in recent years, and that medical personnel may thus lose their present awareness of the importance of malaria, there is need to secure proper planning of antimalarial prophylactic measures, and to relate these measures to epidemiological situations.

To achieve such planning the Ministry of Health, USSR, has prepared appropriate instructions for methodological guidance of medical units. An assessment of the reliability of the reported eradication of malaria in all Republics of the USSR was started in 1966 and is being continued. The planning guidance and the collection of available material covering the whole Soviet Union is being carried out by a special Central Commission on the Assessment of Malaria Eradication, organized by the Ministry of Health, USSR. Similar commissions are also being organized in the Ministries of Health of Union Republics, and in the appropriate departments of public health attached to Ministries of Health of the autonomous republics. Planning of antimalarial measures and malaria prophylaxis for the period 1967/1970 will be prepared on the basis of the

results obtained following the assessment of the epidemiological status of relevant areas when the results of the present survey become available. All the planning of antimalarial measures proposed by the Ministries of Health of Soviet Republics will be centralized in the Ministry of Health, USSR. In order to obtain an appropriate implementation of these plans it has been proposed that in all republics and administrative areas where no cases of malaria were reported for three or more years, areas be classified into two epidemiological categories in relation to the transmissibility of malaria: one with high risk of transmission and the other with low risk. Areas where cases of malaria were recorded over the past three years would constitute a separate category.

Such special planning of antimalarial measures is needed since in some parts of the country changes of the malariological situation have occurred. These changes may complicate the epidemiological conditions and require a very high degree of vigilance by public health units. Amongst such changes, the increase of irrigation areas related to agricultural activity may extend the Anopheles breeding area and the subsequent greater density of malaria vectors may increase the liability of transmission of malaria in localities where no antimalarial measures have been carried out for a number of years. This explains why in the USSR particular attention is being paid to the setting up of a system of antimalarial measures in areas with irrigated agricultural activities, in particular rice-growing areas.

Considerable importance is attached in the USSR to the advanced epidemiological analysis of malaria incidence and of the effectiveness of antimalarial prophylactic measures. Annual data obtained through this analysis are being sent by the Ministries of Health of the USSR Republics to the Ministry of Health of the USSR. In addition, the data on epidemiological follow-up obtained from each malaria case or from each parasite carrier, including an account of the action taken, are being sent to the Division of Malaria Prophylaxis at the Institute of Medical Parasitology and Tropical Medicine, Moscow. This assures a constant supervision of local work. Moreover, annual field visits to various localities, and especially to malaria foci, are being organized in order to check and analyze the type of work carried out on the spot. Such active participation is assured by the staff of the Institute of Medical Parasitology and Tropical Medicine in Moscow, in collaboration with the staff of similar Institutes of the Russian Federal Soviet Republic, and of the Republics of

Georgia, Azerbaidjan and Uzbekistan and the participation of departments of parasitology of other institutes of epidemiology of hygiene in other republics of the USSR.

Finally, seminars on problems of prophylaxis of malaria and of other tropical communicable and parasitic diseases are being organized for various groups of medical and health personnel. The Institute of Medical Parasitology and Tropical Medicine has prepared three separate programmes for such seminars:

- (1) for doctors and feldshers (medical assistants) on the staff of medical prophylactic institutions;
- (2) for epidemiologists and chiefs of polyclinical units dealing with transmissible diseases;
- (3) for doctors and laboratory technicians.

Thus, during the period 1967/1970 it is planned that work on the elimination of the few residual foci will continue and at the same time action will be taken to prevent the reappearance of indigenous cases of malaria in the rest of the USSR.

#### REFERENCES

Sergiev, P. G. et al. (1966) Malaria in the USSR, 1963-1965. (in Russian) Med. Parazit. (Mosk.), 35, 444

## RESUME

L'élimination du paludisme avait été pratiquement réalisée dans l'Union soviétique en 1960. Depuis lors, toutefois, le nombre des cas importés de l'extérieur a augmenté d'année en année, et l'on signale en outre chaque année un nombre de cas associés à des transfusions sanguines ou d'autres formes d'hémothérapie, pour la plupart dus à Plasmodium malariae.

Les seuls foyers intérieurs d'infection existant aujourd'hui en URSS se situent dans la poche de Kura-Araksin (République d'Azerbaïdjan). Dans cette région, les mesures nécessaires ont été appliquées avec certains retards, mais une campagne énergique menée récemment a permis d'y réduire considérablement l'incidence de la maladie.

Des mesures antipaludiques continuent à être appliquées sur l'ensemble du territoire de l'URSS par les services compétents, qui s'efforcent en particulier d'éliminer les foyers de paludisme et d'empêcher la réintroduction de la maladie par propagation à partir de cas importés.

Une Commission centrale d'Evaluation de l'Eradication du Paludisme a été créée et des commissions analogues existent dans les diverses républiques, où elles donnent des directives et recueillent des informations pour les analyser. Des renseignements concernant les enquêtes épidémiologiques auxquelles chaque cas constaté donne lieu sont envoyés, avec un exposé des mesures prises, de toutes les régions du pays à la Division de la Prophylaxie du Paludisme de l'Institut de Parasitologie médicale et de Médecine tropicale à Moscou, qui bénéficie, dans son action, de la collaboration des instituts similaires existant dans les diverses républiques.

Afin de faciliter la tâche du personnel médical, qui n'a que si rarement aujourd'hui l'occasion d'observer des cas cliniques de paludisme et qui se trouve pour cette raison moins expérimenté dans ce domaine, des séminaires sont organisés sur les problèmes que pose la prévention du paludisme. On se propose de poursuivre, pendant les années 1967 à 1970, les efforts visant à éliminer les foyers rémanents de la maladie et en même temps des mesures seront prises pour empêcher la réapparition de cas indigènes de maladie dans les autres régions de l'URSS.

TABLE 1. MALARIA IN THE USSR DURING 1960-1965

Republics of the Soviet Union	Total cases of malaria*						Number of imported cases					
	1960	1961	1962	1963	1964	1965	1960	1961	1962	1963	1964	1965
RSFSR	136	167	120	108	140	201	33	89	98	95	118	194
Ukrainian SSR	17	10	14	10	15	27	4	5	11	8	15	24
Byelorussian SSR	1	1	2	-	3	2	-	-	2	-	3	-
Uzbek SSR	12	10	26	22	10	6	1	2	-	2	1	3
Kazakh SSR	54	21	68	41	11	9	24	-	61	22	2	-
Georgian SSR	15	24	6	15	8	2	-	2	-	3	3	1
Azerbaijan SSR	118	161	152	77	296	123	-	-	1	1	-	1
Lithuanian SSR	-	-	1	-	-	1	-	-	1	-	-	1
Moldavian SSR	1	1	1	-	3	1	-	-	1	-	1	1
Latvian SSR	-	2	3	3	1	3	-	1	3	3	-	3
Kirghizian SSR	-	-	-	1	-	-	-	-	-	1	-	-
Tadjik SSR	61	93	53	21	18	12	-	-	-	-	-	-
Armenian SSR	4	5	2	-	3	2	-	-	-	-	-	-
Turkmen SSR	6	3	2	1	-	-	-	-	-	-	-	-
Estonian SSR	-	-	-	2	5	3	-	-	-	2	5	3
TOTAL	425	498	450	301	513	392	62	99	178	137	148	231

\* all primary clinical cases and symptomless parasite carriers.

The purpose of the WHO/Mal series of documents is threefold:

(a) to acquaint WHO staff, national institutes and individual research or public health workers with the changing trends of malaria research and the progress of malaria eradication by means of summaries of some relevant problems;

(b) to distribute to the groups mentioned above those field reports and other communications which are of particular interest but which would not normally be printed in any WHO publications;

(c) to make available to interested readers some papers which will eventually appear in print but which, on account of their immediate interest or importance, deserve to be known without undue delay.

It should be noted that the summaries of unpublished work often represent preliminary reports of investigations and therefore such findings are subject to possible revision at a later date.

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