

#### ORGANISATION MONDIALE DE LA SANTÉ

### BUREAU RÉGIONAL DE LA MÉDITERRANÉE ORIENTALE

## REGIONAL OFFICE FOR THE EASTERN MEDITERRANEAN

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DECENTRALIZATION IN IRAN

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In a country like Iran, with its large geographical size, and the existence of many areas which are difficult to reach, description is the key to successful malaria eradication.

Pioneer control efforts relied largely on mobile teams for both survey and spraying purposes. As areas under control become more extensive it was found necessary to decentralize the activities to the regional Ostan level.

In 1956 Iran embarked on a progressive cradication programme aimed at bringing the malarious areas of the entire country by stages under an attack phase through residual spraying, with subsequent phasing into a consolidation stage as pre-discontinuation surveys indicate that malaria transmission had been stopped for three consecutive years.

In 1957 it became apparent that the lack of decentralization below the Osean level was creating problems detrimental to cradication. So described at the Chahrestan level (Provincial) was planned for and implemented in 1958.

After Shahrestan operations were consolidated and tested under operating conditions in the field in 1958 certain defects were found which seemed to be hampering fully efficient operations. Many of these stemmed from inadequate knowledge of the number of villages in certain areas and imperfect knowledge of the number of temporary shelters existing in the area from time to time, whether these were tribel tents or temperary summer huts.

An analysis of the areas for ineffective operations in some areas suggested that the geographical expanse of the Shahrestan prevented eradication personnel from dealing with the local problems: Some of these areas were as large as 8,000 square miles or larger.

While cpidemiological surveys had been made in many areas to determine malaria endemicity, entomological surveys had not been as extensive as desirable for malaria eradication. It was thus felt that a further decentralization to smaller units than Shahrestan has to be made to permit effective epidemiological and entomological activities.

In 1960 it is planned to decentralize to bakhsh level so as to permit more careful attention to needed organizational details for more effective survey and/or surveillance operations. This would permit proper emphasis to be given to tribal tents and temporary summer huts, which require constant attention, since they change locations relatively frequently, depending on the availability of pasture for their domestic animals.

But there are over 600 bakhshes in Iran-and while, decentralization is being planned for those known to be malarious in 1960, the difficulty arises in securing competent personnel to swiff all these malarious bakhshes, and hence the limiting on the number that can be completely staffed.

The Malaria Fradication Organization in collaboration with the Institute of Malariology is compiling all information available on these bakhshes in order to classify these under two groups: (1) where the malaria problems are intense and control operations as practised up to the present time has been unable to interrupt transmission. (2) Where the malaria problem is such as to make it relatively easy to interrupt transmission.

Into the first priority bakhshes, usually those where Anopheles sacharovi and/or A. superpictus seem to be the principal vectors (to which we must now add Anopheles fluviatilis), it is hoped that we can establish an organization which can get complete spraying coverage and fully effective surveillance. In addition it is hoped that additional information on vector density, month by month, can be obtained so that an additional assessment on the progress of the work can be provided.

The strengthening of entomological activities seems to be importative under Iranian conditions. The Sixth Report of the Expert Committee on Malaria emphasized two phases of eradication operations: spraying operations (attack phase) and epidemiological activities (consolidation) with stress on malaria cases. One gets the impression that the link in the malaria chain at which our operations are aimed is forgotten: the vector mosquite. It is felt that careful checks on anopheline population segregated by species can provide us with information much more quickly than can malaria case reporting, which is often too late for field investigations, since by the time the case is known, the current happenings in the area would have been missed.

The present table of organization of the Malaria Eradication provided for an entomologist in each Ostan. As the availability of medical entomologists in Iran is limited, the idea of having field entomologists operating under the direction of Ostan entomologists has to be abandoned. It has been proposed that surveillance agents should also do mosquito collecting but usually this class of personnel would not have the time to do this intensely enough. In an area, for example, where small numbers of sacharovi are maintaining transmission, these small numbers may be submerged under large numbers of relatively harmless anophelines, and special collecting methods would be needed to reveal their presence.

If we are able to develop junior entomologists to serve under the Ostan Medical Entomologist by assigning them to Shahrestans, we think that many of the unknown factors maintaining transmission in some areas might be worked out.

Ifter one or two years! experience with bakhsh level organization it will be possible to duplicate them in other bakhshes in which the malaria problem is not so intense until all of the malarious bakhshes are included in a much more effective organization.

We must consider the position of the Ostan epidemiologist in the total picture. Ostans are so large even if he had one or two assistant epidemiologists they could not possibly hope to investigate each case reported by the surveillance organization. In the bakhshes it is hoped that one or two epidemiological aides can be developed who are able to make the necessary investigations and reports to the Ostan epidemiologist who in turn can evaluate the importance of this case in the local area and in the overall Ostan programme.

It is only by a strong organization at the bakhsh level, able to carry out effective operations that we can expect that malaria, after its long sojourn of thousands of years in Iran, can beat the drums of retreat for the last time.

ANNEX I SURVEILLANCE ACTIVITILS EXECUTED MARCH -SEPTEMBER IN IRAN.

Country surveillance, activities	Type of surveillance	Villages	Population	Slides collected	Position
11	10% S.	1791	507639	41332	242
ii i	100% S.D.	8434	2701469	73904	160
II .	100% Մ.S.	10393	2759763	160893	915
11	100% P.C.	4284	1014332	42841	1038
Grand to-		24902	6983203	318970	2355

#### KEY

10% S - Survey +)
100% S.D. - Spraying Discontinuation
100% U.S. - Under Spraying
100% P.C. - Presumably Clean

+) They were imported cases mostly from one restricted area not under the present eradication. Promt action has been taken. Local Transmission does not occur.