



INFORMATION ON THE MALARIA CONTROL PROGRAMME IN IRAN¹

1. Present status of malaria control in the country.

1.1 Recently estimated population of the country: 20 253 000 (1953)

1.2 Number of inhabitants living in malarious regions: 12 000 000

1.3 Malaria morbidity and mortality statistics for the last 15 years:

No data available. Malaria is not a notifiable disease. According to Iranian estimates from 3 to 4 million cases (new cases and relapses) occurred annually before the control programme was begun.

1.4 Total population directly protected against malaria, by any method of control, in 1953: 4 243 000.

1.5 Areas where the population was directly protected in 1953:

Malaria control was most intensive in those areas which are especially malarious: Caspian Region, Persian Gulf Region, Baluchistan and Azerbaidjan.

1.6 Data detailed in Annex I.

1.7 Information on the evaluation of the results of the campaign.

There are only a few areas where appropriate malariometric surveys have been periodically carried out. Among, these the Caspian Littoral is a representative area and illustrates the effectiveness of DDT spraying.

¹ From information available in WHO, Malaria Section, no reply having been received to the questionnaire.

Spleen index reduction on the Caspian Littoral
from the 2-9 years age group

(number of examined not indicated)

Localities *	Years				
	1949	1950	1951	1952	1953
Lasht Nesha	-	77%	25%	18%	22%
Hadi Kiasar **	-	46	59	25	13
Ghasem Abad	-	67	25	16	11
Sadat Mahaleh	-	49	12	5	2.5
Chalus	89%	40	21	9	8
Fereidun Kenar	-	48	19	11	-
Ghajar Kheil	-	100	51	21	8
Maforujak	-	80	31	16	-
Pishkhan ***	-	-	35	34	36

* All localities except Hadi Kiasar and Pishkhan were sprayed the year when the surveys were carried out.

** Hadi Kiasar was not sprayed in 1950.

*** Check area, has not been sprayed.

2. Organization, methods, and training facilities of the present programme

2.1 Organization

Malaria control is the responsibility of the Public Health Co-operative Organization (PHCO), under the Ministry of Health, and of the Institute of Malariology of the Medical Faculty of Teheran.

The PHCO is responsible for the execution of the spraying programme which is largely decentralized: in each of the 10 Ostans (provinces) there is an autonomous permanent malaria control unit, provided with personnel, transport and equipment.

The Institute of Malariology is responsible for the technical and scientific aspects of the malaria control programme: planning, malarimetric and entomological surveys, evaluation of results of the campaign, and training of personnel.

A general plan of operations and also the scientific and technical procedures to be adopted are determined by a Scientific Council composed of technical authorities of the Ministry of Health, Institute of Malariology, PHCO, Medical School, USOM and WHO.

2.2 Methods of malaria control

2.2.1 Malaria control is based on DDT residual spraying. Anti-larval work is undertaken only in some limited areas.

2.2.2 Antimalarial drugs are not used for control.

2.3 Training facilities

The Institute of Malariology gives training courses of three months' duration comprising courses on malariology, entomology, parasitology and public health. Special courses are given to the malaria control team leaders and their assistants.

3. Plans for the future

An eradication campaign will begin in 1957 to cover progressively the 40 000 villages situated in endemic areas.

Year: 1953

1. Area of operations: no data
2. Number of villages sprayed: 14 542
3. Population directly protected (i.e. living in sprayed structures): 4 243 900
4. Population protected by other methods of control: 0
5. Number of sprayings in the year: 1
6. Insecticides and formulations used: DDT 75% wettable powder
Total annual consumption: DDT (in terms of technical grade): 1 086 683 kg
7. Average dose of insecticide per square metre, for each spraying: DDT (in terms of technical grade): 2 g
8. Types of sprayers used: Lofstrand sprayers, Hudson sprayers, Moayeri spray pumps, some knapsack sprayers.
9. Are all structures sprayed? All structures are sprayed.
10. Average superficial area sprayed during each spraying per inhabitant directly protected: 123 m²
11. Cost of residual spraying operations
 - 11.1 Total cost per year: US\$ 1 485 365.-
 - 11.2 Percentage of the total sum expended on insecticides formulations: no data
 - 11.3 Annual cost per capita of the population protected by residual spraying: US\$ 0.35
12. Cost of operations by other methods of anopheles control: no data
13. Cost of control operations by drug prophylaxis: no data

Annex 1Year: 1954

1. Area of operations; no data
2. Number of villages sprayed: 15 405
3. Population directly protected (i.e. living in sprayed structures): 3 915 000*
4. Population protected by other methods of control: 0
5. Number of sprayings in the year: 1
6. Insecticides and formulations used: DDT 75% water dispersible powder.
Total annual consumption: DDT (in terms of technical grade): 1 019 374 kg
7. Average dose of insecticide per square metre, for each spraying: DDT (in terms of technical grade): 2 g
8. Types of sprayers used: same as 1953.
9. Are all structures sprayed? Yes
10. Average superficial area sprayed during each spraying per inhabitant directly protected: 142 m²
11. Cost of residual spraying operations:
 - 11.1 Total cost per year: US\$ 1 174 500
 - 11.2 Percentage of the total sum expended on insecticides formulations: no data
 - 11.3 Annual cost per capita of the population directly protected by residual spraying: US\$ 0.30
12. Cost of operations by other methods of anopheles control, if any (larval control) no data
13. Cost of control operations by drug prophylaxis: no data

* The decrease in the number of population protected is due to the fact that in 1954 all main cities (about 52) were excluded from the programme.

Annex 1

Year: 1955

1. Area of operation: no data
2. Number of premises sprayed: 725 000
Number of villages sprayed: 16 106
Number of villages under protective surveillance: 430
Number of persons " " " 86 000
3. Population directly protected (i.e. living in sprayed structures): 3 885 800
4. Population protected by other methods of control: 0
5. Number of sprayings in the year: 1
6. Insecticides and formulations used:
Total annual consumption: no data
7. Average dose of insecticide per square metre, for each spraying: DDT (in terms of technical grade): 2.01 g
8. Types of sprayers used: same as 1953
9. Are all structures sprayed? Yes, all structures are sprayed.
10. Average superficial area sprayed during each spraying per inhabitant directly protected: 102 m²
11. Cost of residual spraying operations:
 - 11.1 Total cost per year: US\$ 2 321 172.-
 - 11.2 Percentage of the total sum expended on insecticides formulations: no data
 - 11.3 Annual cost per capita of the population directly protected by residual spraying: US\$ 0.34
12. Cost of operations by other methods of anopheles control, if any (larval control): 0
13. Cost of control operations by drug prophylaxis: 0