

WORLD HEALTH  
ORGANIZATION

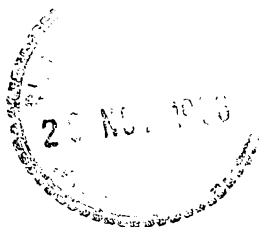
EXPERT COMMITTEE ON MALARIA

Athens, 20-28 June 1956

ORGANISATION MONDIALE  
DE LA SANTÉ

WHO/Mal/180 Add. 2 ✓  
14 November 1956

ENGLISH ONLY



SIXTH REPORT

Addendum No. 2

Please find attached Annexes III and IV which have to be added to Document  
WHO/Mal/180 after page 92.



## DATA ON PERSONNEL EMPLOYED IN ANTIMALARIA CAMPAIGNS

The form which follows is intended to facilitate the gathering of information on the different categories of personnel used in antimalaria campaigns at all stages of operations, from preliminary survey to final surveillance. When this information has been collected, a comparative table of titles used in different countries for the various functions will be prepared.

In filling in the form, your attention is drawn to the following notes:

Note 1: The differentiation between "malariologists" and "assistant malariologists", both of whom are medical graduates, is difficult to define. It is assumed that the "malariologist" is more experienced in the specialty and better qualified.

Note 2: Supervisors or sanitary assistants, engineering aides, senior malaria inspectors, malaria inspectors, geographical reconnaissance workers or enumerators, foremen. These posts represent what might be called the "non-commissioned officers" - whatever their titles may be in the various countries - at descending levels of direction or supervision of control and pre-control operations. In the following tables, "supervisor" is the term chosen to indicate the level immediately below the professionally qualified director of operations; the "senior malaria inspector" represents an intermediate grade between the "supervisor" and the "malaria inspector", the latter being the lowest supervisory grade above the spraying squad with its immediate commander, the "foreman". These several grades may well be employed in pre-control operations and may be called "engineering aides", "geographical reconnaissance workers" and "enumerators", and during control operations they may perform supervisory duties better described by one or other of the titles. These various grades may also be employed in epidemiological surveys or surveillance.

Note 3: Where the time of staff, whether they are permanently or temporarily employed, is divided between different activities, the figure indicating the number of such personnel should be entered in the column indicating the appropriate activity, followed by a figure in brackets in each of the columns indicating the approximate number of months spent on that particular activity, e.g.

Permanent				
	Control Operations	Evaluation		Administration
		Surveys	Surveillance	
Sanitarians	4 (3)	4 (2)	4 (7)	
Malaria Inspectors	18 (4)	18 (3)	18 (5)	
Laboratory Assistants		6 (3)	6 (9)	

COUNTRY ..... Total population of the country .....  
 YEAR ..... Population living in malarious areas <sup>(1)</sup> .....  
 Population under control .....  
 Population under surveillance .....

PERSONNEL EMPLOYED DURING THE YEAR .... FOR ANTIMALARIA WORK

TITLE	LOCAL TITLE	PERMANENT					TEMPORARY				
		Control Operations	Evaluation		Administration	Total	Control Operations	Evaluation		Administration	Total
			Surveys	Surveillance				Surveys	Surveillance		
A. PROFESSIONAL PERSONNEL											
Malariaologists (medical graduates)											
Asst. Malariaologists (medical graduates)											
Medical Officers (not malariaologists)											
Parasitologists											
Entomologists (science graduates)											
Sanitary Engineers											
Chemists											
Sanitarians											
P. H. Nurses											
Administrators											
Logistic Experts											
Accountants											
Statisticians											
* .....											
* .....											
* .....											

\* Enter any additional categories of personnel in these spaces if necessary.  
 (1) Areas where malaria is, or has been within recent years, endemic.



TITLE	LOCAL TITLE	PERMANENT					TEMPORARY				
		Control Operations	Evaluation-tion		Administration	Total	Control Operations	Evaluation-tion		Administration	Total
			Surveys	Surveillance				Surveys	Surveillance		
<b>B. AUXILIARY PERSONNEL</b> (continued)											
Drivers											
Mechanics											
Clerks											
Storekeepers											
Insecticide Packers											
Secretaries											
Typists											
* .....											
* .....											
* .....											
<b>C. LABOUR</b>											
Spraymen											
Spraymen Aides											
* .....											
* .....											

\* Enter any additional categories of personnel in these spaces if necessary.

DATA TO BE INCLUDED IN REPORTING THE RESULTS  
AND COSTS OF ANTIMALARIA PROGRAMMES

Name of Country . . . . . Data for year . . . . .

Objective: Control  or Eradication  or Eradication by stages

Population of the country (calculated on . . . . .) . . . . .

Population living in malarious areas (i.e. where malaria is or has been within recent years, endemic) . . . . .

I. DATA ON RESIDUAL SPRAYING

1. Population directly protected, i.e. living in sprayed structures: . . . . .
2. Protected area (square kilometres or square miles): . . . . .
3. Number of villages or localities sprayed in the year (one or more times): . . . . .
4. Number of houses and other structures sprayed (one or more times a year): . . . . .

5. Are there any unprotected malarious or potentially malarious localities within the protected area? Yes  No

If yes, what is the population and area of the unprotected localities expressed as percentages of the protected population and area?

Population . . . . %

Area . . . . %

6. Total surface area sprayed per spraying cycle<sup>1</sup> (sq. metres or sq. feet): . . . . .

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<sup>1</sup> "Spraying cycle" here and in I.8(a) and I.11 means one application of insecticide to the area. In some areas the application of a particular dose of insecticide has to be repeated more than once during the year.

7. Insecticides used:

Insecticide formulations	Dosage in g/sq. m.*	No. of applications per year	Total amount of insecticide used in year	Population protected in year

8. Average surface area sprayed per person protected per cycle of spraying (in square metres or square feet): . . . . .

Indicate whether figure arrived at:

- (a) by actual measurement
- (b) by sample measurement
- (c) by other methods

9. Is the whole inside wall surface sprayed? If not, give height of spray      Yes  No
- Is the ceiling or the undersurface of the roof sprayed?      Yes  No
- Is the underside of beds sprayed?      Yes  No
- Is the furniture sprayed?      Yes  No
- Is the underside of the eaves sprayed?      Yes  No

\* in terms of technical product (or of gamma isomer for BHC)



10. Are all structures (houses, churches, temples, mosques, halls, offices, shops, business premises, theatres and cinemas, restaurants, coffee-houses, warehouses, schools, garages, stables, animal sheds) sprayed?

.....  
 (Delete the structures which are not sprayed when they exist in the village, and add others which are sprayed but not listed above)

11. Total man-days per spraying cycle: . . . . .

12. Average number of hours worked per man per day, including travel: . . . . .

13. Percentage of working hours used for travel: . . . . .%

14. Types and number of sprayers used:

	number	operated by	
		one man	two men
(a) Compression sprayer	. . . . .	<input type="checkbox"/>	<input type="checkbox"/>
(b) Stirrup pumps	. . . . .	<input type="checkbox"/>	<input type="checkbox"/>
(c) Knapsack sprayers	. . . . .	<input type="checkbox"/>	<input type="checkbox"/>
(d) . . . . .	. . . . .	<input type="checkbox"/>	<input type="checkbox"/>

(e) Types of spraying nozzles used and material of which they are made . . . . .

15. \* Expenditure for the year. Currency: . . . . .

	by government	by international or bilateral agencies (specify)		Total
(a) Insecticides	. . . . .	. . . . .	. . . . .	. . . . .
(b) Labour	. . . . .	. . . . .	. . . . .	. . . . .
(c) Supervisory staff**	. . . . .	. . . . .	. . . . .	. . . . .
(d) Equipment***	. . . . .	. . . . .	. . . . .	. . . . .
(e) Transport****	. . . . .	. . . . .	. . . . .	. . . . .
(f) Others	. . . . .	. . . . .	. . . . .	. . . . .
Total	. . . . .	. . . . .	. . . . .	. . . . .

16. Expenditure per capita protected per year  
(Item 15 - figure at bottom right - divided by Item I.1): . . . . .

II. DATA ON OTHER CONTROL MEASURES - CONTROL OF ANOPHELINE BREEDING

A. Larviciding

1. Population protected	
(a) by larviciding alone	. . . . .
(b) by larviciding combined with residual spraying	. . . . .
Total	. . . . .

\* To ensure comparability, it is suggested that under this item be given only the expenditure inherent to the actual spraying operations, but not that related to surveys, studies and assessment, or to training. These will be included in Sections IV and V.

\*\* Staff belonging to malaria service at all levels. In some instances it may include part of the salaries of health officials outside malaria service devoting part of their time to malaria control. If so, this should be stated.

\*\*\* Suggested rate of depreciation: 25% per year if operations do not last more than six months; if operations are carried out normally, throughout the year, 33% depreciation is suggested.

\*\*\*\* This should include operational expenses plus depreciation of vehicles. (suggested rate of depreciation: 2% per month).

2. Larvicidal formulations used - Total annual consumption

- (a) . . . . .
- (b) . . . . .
- (c) . . . . .

3. Special features of areas and water collections where larviciding is used (e.g. wells in towns - rice field - etc.) and size of area involved:

. . . . .  
 . . . . .  
 . . . . .

4. Application:

Season of application	Frequency of application	Dose per sq. m of water surface	Method of application
(a) . . . . .	. . . . .	. . . . .	. . . . .
(b) . . . . .	. . . . .	. . . . .	. . . . .
(c) . . . . .	. . . . .	. . . . .	. . . . .

5. Expenditure:

(a) Larvicides	. . . . .
(b) Labour	. . . . .
(c) Supervisory staff*	. . . . .
(d) Equipment**	. . . . .
(e) Transport***	. . . . .
(f) Other	. . . . .
Total	. . . . .

6. Expenditure per capita thus protected per year:  
 (Item 5 total divided by item 1 total)

. . . . .

\* Staff belonging to malaria service at all levels. In some instances it may include part of the salaries of health officials outside malaria service devoting part of their time to malaria control. If so, this should be stated.

\*\* Suggested rate of depreciation: 25% per year if operations do not last more than six months; if operations are carried out normally throughout the year, 33% depreciation is suggested.

\*\*\* This should include operational expenses plus depreciation of vehicles. (Suggested rate of depreciation: 2% per month).

B. Drainage (in the most comprehensive meaning, i.e. "dewatering", including besides drainage itself, dyking, pumping, etc.)

- 1. Population protected
  - (a) by drainage alone . . . . .
  - (b) by drainage combined with residual spraying . . . . .
  - (c) by drainage combined with larviciding alone . . . . .
  - (d) by drainage combined with larviciding and residual spraying . . . . .
  - (e) by drainage combined with other methods (specify) . . . . .
  - Total . . . . .
- 2. Total yearly expenditure on drainage . . . . .
- 3. Expenditure per capita thus protected . . . . .

III: DATA ON OTHER CONTROL MEASURES - MASS DISTRIBUTION OF ANTIMALARIAL DRUGS

- 1. Population protected
  - (a) by drug administration alone . . . . .
  - (b) by drug administration combined with residual spraying . . . . .
  - (c) by drug administration combined with other methods (specify) . . . . .
  - Total . . . . .

2. Type and amount of antimalarial drugs used during the year (excluding drugs used for treatment of clinical malaria cases):

Type of drug	Duration of season of administration	Adult dose	Frequency of administration	Total population protected	Total amount of drug used in the year
(a)	.....	.....	.....	.....	.....
(b)	.....	.....	.....	.....	.....
(c)	.....	.....	.....	.....	.....

Where more than one drug is used, state whether the two or more drugs are administered together or independently of each other: . . . . .

- 3. Expenditure:
  - (a) On drugs used . . . . .
  - (b) On personnel for their administration . . . . .
  - Total expenditure for the year . . . . .
- 4. Expenditure per capita thus protected per year: . . . . .

IV. DATA ON EVALUATION

A. Surveys

1. Population and/or number of villages/towns surveyed during the year prior to operations
 

Population	. . . . .
Number of villages	. . . . .
Number of towns	. . . . .
2. Expenditure on staff for surveys . . . . .
3. Expenditure on supplies and equipment for surveys . . . . .
4. Expenditure on transport for above surveys (including running costs, depreciation and maintenance) . . . . .
5. Total expenditure on surveys . . . . .

B. Surveillance

1. Population and/or number of villages/towns under surveillance during the year
 

Population	. . . . .
Number of villages	. . . . .
number of towns	. . . . .

Are all the villages/towns visited regularly? Yes  No


Average number of surveillance visits per village/town : . . . . .
2. Expenditure on staff for surveillance . . . . .
3. Expenditure on supplies and equipment used for surveillance . . . . .
4. Expenditure on transport for surveillance (including running costs, depreciation and maintenance) . . . . .
5. Total expenditure on surveillance . . . . .


C. Malaria incidence


1. Number of cases notified as malaria . . . . .
2. Number of cases microscopically confirmed . . . . .
  - of which: P. vivax . . . . .
  - P. falciparum . . . . .
  - P. malariae . . . . .
  - P. ovale . . . . .
3. (1) . . . . .



D. Map summarizing present status

A sketch map would be appreciated, showing the state or provincial division of the country, leaving white the non-malarious areas i.e. those where no transmission occurred during the last 15 years.

shading with oblique  the areas where control, not on a total coverage basis is carried out in the year under review

shading with cross oblique  the areas where total coverage control (in view of eradication) is carried out in the year under review

shading with vertical  the areas where surveillance has replaced spraying

giving the number of malaria cases notified in a circle  and the number of cases microscopically confirmed in a square  for each state or provincial division.

V. TOTAL MALARIA BUDGET

(This includes total expenditure for the whole programme, including all types of control measures, surveys, surveillance activities, training, laboratory and administrative services, etc. The expenditure under sections I, II and III refers only to that incurred during the operations, whereas this section includes the over-all budget and expenditure of the programme:

	From Government	From other agencies (specify) . . . . .	Total
Budgeted . . . . .			
Actually expended . . . . .			
Expenditure per capita (total of second line divided by total number of people protected by any method)			

(1) If reliable figures for 1 and 2 above, obtained by a surveillance system, are not available, give on a separate sheet relevant malarimetric data.