

PAN AMERICAN HEALTH ORGANIZATION

working party of the regional committee WORLD

WORLD HEALTH ORGANIZATION



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Topic 18: ESTIMATED REQUIREMENTS FOR PAHO SPECIAL MALARIA FUND

The Director has the honor to present, for the information of the Executive Committee, the attached document, "Estimated Requirements for the PAHO Special Malaria Fund." The document was prepared in November 1960, as an aid to the staff forecasting future program and budget requirements.

It should be pointed out that the estimated requirements were based upon the information regarding program development available in November 1960, and upon the best judgment at that time as to the duration of activities in each individual case. In the interim, several country malaria eradication programs have required alteration for technical or financial reasons, and this may prolong activities beyond the period foreseen in the attached document. It is suggeted, therefore, that care be exercised in interpreting the requirements in each case, and that it be recognized that, in the twenty-nine individual national programs, set-backs and delays that cannot be foreseen at this time may occur. The estimates should therefore be regarded as probable minimum estimates, based upon the evidence available at the time of their compilation.

In view of the foregoing the Executive Committee may wish to approve a resolution along the following lines:

Proposed Resolution

The Executive Committee,

Having examined Document CE43/5, Annex I, "Estimated Requirements for the PAHO Special Malaria Fund;" and

Having reviewed the requirements for individual program activities being developed or planned by the Pan American Health Organization,

RESOLVES:

- 1. To take note of the estimates for future requirements;
- 2. To request that this material be presented to the Directing Council at its next meeting, together with such revisions as may be required to bring it up to date at that time:
- 3. To request the Director to prepare annual revisions of these estimates for study by the Executive Committee and the Directing Council; and
- 4. To request Member Governments to continue their support to the PAHO Special Malaria Fund so that eradication activities may proceed as scheduled.

Annex I

CE43/5 (Eng.) ANNEX I

ESTIMATED REQUIREMENTS FOR THE PAHO SPECIAL MALARIA FUND

The XIV Pan American Sanitary Conference assigned to the PAHO responsibility for promoting intensification and coordination of malaria eradication in the Western Hemisphere and created a Special Malaria Fund to finance these activities.

The United States made an initial contribution to the Special Malaria Fund in March, 1957, and has made annual contributions since.

Venezuela, the Dominican Republic and Haiti have also contributed to the Fund.

The present document has been prepared as a forecast of future requirements of the PAHO Special Malaria Fund, based upon operating experience during the last three and one-half years. In this period all countries and territories of the Americas where malaria exists have organized campaigns to eradicate the disease. Although programs did not start simultaneously in all countries, coordinated efforts in border areas have been developed. In one country, Haiti, the program has been suspended temporarily, due to financial difficulties.

An estimate of the progress of each program is presented in this document. In brief, malaria eradication is progressing well in Venezuela, Argentina, Mexico, and in a number of the Caribbean islands. In Central America, the appearance of resistance to insecticides by the Anopheles mosquito requires that spraying operations be prolonged in that area beyond the original schedule. Good progress is being shown in western and

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central South America. Administrative and financial difficulties have hampered the development of the campaigns in Brazil and Panama.

Method of Presentation

For each country shown, estimates of the cost of the program are presented. These figures are based upon a questionnaire prepared by PAHO in March, 1960, in which Governments were requested to show actual expenditures during 1959, and budget estimates for future years. No information is available from Venezuela, French Guiana and Guadeloupe.

A number of programs receive substantial support from UNICEF and from ICA. Such contributions are included in the category "Government and Other Sources". In the Americas, UNICEF provides supplies and equipment to the following programs:

Argentina

Bolivia

British Guiana

British Honduras

Colombia

Costa Rica

Dominican Republic

Ecuador

El Salvador

Federation of the West Indies:

Dominica

Grenada

Jamaica

St. Lucia

Trinidad and Tobago

Guatemala

Honduras

Mexico

Nicaragua

Panama

Paraguay

Peru

Surinam

ICA provides assistance to:

Bolivia

Brazil

São Paulo

Colombia

Ecuador

Federation of West Indies:

Jamai ca

Guatemala

Honduras

Nicaragua

Paraguay

Peru.

PAHO requirements are estimated in accordance with the appraisal of progress for each country, as shown on the summary sheets. For costs of personnel and travel, the standard method of budget estimates for PAHO has been used.

In Brazil and Haiti, no accurate time-table of developments can be forecast as of November, 1960. Estimates of requirements for these

countries may require modification in the future, as may those for all the other countries depending upon developments.

In accordance with present knowledge regarding the progress of malaria eradication in the Americas, activities financed by the PAHO Special Malaria Fund should terminate in 1967. However, as has been pointed out, accurate forecasting in several programs is not possible at this date and should activities be prolonged, it may be necessary to extend the period of financing from the Fund.

SUMMARY OF ALL PROGRAMS

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST 1/	32,852,635	32,998,539	32,228,533	28,675,800	16,789,000	11,477,500	7,274,500	2,964,500	165,261,007
GOVT. AND OTHER SOURCES 1/	10,442,000		29,532,000		14,963,000	10,617,000	6,710,000		151,495,000
PAHO PORTION:				, ,	_				
Personnel Costs and Travel	1,945,497	2,053,611	1,945,835	1,624,750	1,308,750	709,500	439,500	252,500	10,279,943
Supplies and Equipment	290,111	303,068	309,498	233,150	183,450	87,000	65,000	52,000	1,523,277
Fellowships	106,400	116,100	81,700	34,400	4,300	-	-	-	342,900
Grants and Others	68,627	68,760	59,500	39,500	29,500	14,000	10,000	10,000	299,887
SUB-TOTAL PAHO 3/	2,410,635	2,841,539	2,696,533	2,231,800	1,826,000	860,500	564,500	334,500	13,766,007

Malarious area: 4,968,548 Sq. Miles. Population at risk: 84,704,000

Comments: 1/ Costs of malaria eradication programs in Venezuela, Guadeloupe and French Guiana are not included.

2/ Includes annual amounts budgeted for Haiti but not shown in detailed breakdown. See summary sheet for Haiti.

ZONE I

Zone I comprises Venezuela; France: Guadeloupe,
Martinique and French Guiana; Netherlands:
Netherlands Antilles and Surinam; United Kingdom:
Bermuda Islands, Bahama Islands, Jamaica*, Leeward
Islands*, Windward Islands*, Barbados, Trinidad*,
and Tobago*, and British Guiana; U.S.A.: Puerto
Rico, and Virgin Islands.

* The West Indies.

Zone Headquarters are at Caracas.

SURINAM

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	244,541	255,787	172,635	118,000	108,000	66,000	40,000	•	1,004,963
GOVT. AND OTHER SOURCES	203,000	207,000	130,000	80,000	80,000	40,000	40,000		780,000
PAHO PORTION :		· · · ·	-	•	•	•	- •·		v au-
Personnel Costs and Travel	34,728	33,625	36,135	36,000	26,000	26,000	-	-	192,488
Supplies and Equipment	6,813	6,562	6,500	2,000	2,000	- · · ·	-	-	23,875
Fellowships	-	8,600	<u>-</u>	-	-	- -	-	•	8,600
Grants and Others	-	<u>-</u>	•	—	- ,	•	-	•	
SUB-TOTAL PAHO	41,541	48,787	42,635	38,000	28,000	26,000	-	-	224,963

Malarious area:_	55,212	Sq. Miles	Population at risk · _	275,000
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Comments:

Steady progress is being made in the coastal regions, the most populous of the country, and the attack phase should end on schedule in 1961 in these. The interior will require special efforts beyond those originally planned, due principally to the living habits of the population. The attack phase will be prolonged through 1963. The consolidation phase will terminate in 1966.

PAHO provides a Medical Officer and two Sanitarians. One Sanitarian will terminate in 1963; the Medical Officer and the second Sanitarian in 1965. Antimalarial drugs are provided for treatment of cases and for elimination of residual foci. Fellowships are provided in 1961 to strengthen evaluation and surveillance.

JAMAICA

SUB-TOTAL PAHO

								
1960	1961	1962	1963	1964	196 5	1966	1967	Total
693,952	686,200	145,000	112,000	84,000	-	_	-	1,721,152
636,000	640,000	112,000	98,000	84,000	-	- -		1,570,000
		1				; 	1	
56,602	45,000	30,000	14,000	-	-	<u> </u>	.	145,602
1,350	1,200	3,000	-	-	-	_	-	5,550
-	_	-	_	-	-	-	-	
•	-	-	-	_	· •	-		
	693,952 636,000 56,602	693,952 686,200 636,000 640,000 56,602 45,000	693,952 686,200 145,000 636,000 640,000 112,000 56,602 45,000 30,000	693,952 686,200 145,000 112,000 636,000 640,000 112,000 98,000 56,602 45,000 30,000 14,000	693,952 686,200 145,000 112,000 84,000 636,000 640,000 112,000 98,000 84,000 56,602 45,000 30,000 14,000 -	693,952 686,200 145,000 112,000 84,000 - 636,000 640,000 112,000 98,000 84,000 - 56,602 45,000 30,000 14,000 -	693,952 686,200 145,000 112,000 84,000 636,000 640,000 112,000 98,000 84,000 56,602 45,000 30,000 14,000	693,952 686,200 145,000 112,000 84,000

Malarious area: 4,411 Sq. Miles. Population at risk: 1,689,000

57,952

46,200

<u>Comments:</u> Five Parishes have already been placed in the consolidation phase (surveillance) in advance of the original schedule. Except for small residual foci, the attack phase should be completed on schedule in 1961 throughout the island. The program is expected to terminate in 1964.

33,000 .

14,000

Scheduled reduction in PAHO consultants is as follows: The Health Educator and Engineer in June of 1961; two Sanitarians at the end of 1962; and the Medical Officer at the end of 1963. Supplies and equipment include antimalarial drugs for treatment of cases found, and for elimination of residual foci of infection. The amount budgeted in 1962 will be sufficient for the duration of the program.

151,152

DOMINICA

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	13,000	16,000	7,000	4,000	3,000	2,000	-	-	45,000
GOVT. AND OTHER SOURCES	8,000	11,000	6,000	3,000	3,000	2,000	-	-	33,000
PAHO PORTION:			·						
Personnel Costs and Travel	•	-	-	-	- !	-	-	-	_
Supplies and Equipment	5,000	5,000	1,000	1,000	_	- ;	-	-	12,000
Fellowships	-		-	-	-	-	-	-	_
Grants and Others		• • • • • • • • • • • • • • • • • • •	-	-	- -	-	-		-
SUB-TOTAL PAHO	5,000	5,000	1,000	1,000	-	_	-		12,000

Malarious area:	59	Sq Miles.	Population ct risk ·	13,000
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The attack phase should end on schedule in 1962. PAHO provides technical advice from Zome Office and Headquarters staff. Supplies and equipment provide antimalarial drugs for treatment of cases found and for elimination of residual foci. The program should end in 1965.

GRENADA

Country									
	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	20,000	28,000	10,000	<u>-</u>	· -	· 	-		58,000
GOVT. AND OTHER SOURCES	10,000	18,000	10,000	-	_	_	-	• •	38,000
PAHO PORTION :			·		•	1			
Personnel Costs and Travel	10,000	10,000	-	-	-		-	. -	20,000
Supplies and Equipment	-	- · · · · · · · · · · · · · · · · · · ·	•	-	•	-	-	-	_
Fellowships	_	-	<u>-</u>	-	· -		-	-	
Grants and Others	- '	-	-	-	_	-	-		, -
SUB-TOTAL PAHO	10,000	10,000	-	-	· -		-	-	20,000

Malarious area: 59 Sq. Miles Population at risk: 34,000

Comments: The attack phase terminated on schedule in 1960. In the consolidation phase (surveillance), no cases of malaria have been found as of September, 1960. PAHO will provide one Sanitarian through 1961, to guide the progress of surveillance. Antimalaria drugs have already been provided.

ST. LUCIA

Country

	[‡] 1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	22,000	28,000	12,000	.	-	-			62,000
GOVT. AND OTHER SOURCES	12,000	18,000	12,000	**	_		-	-	42,000
PAHO PORTION :					ĭ				
Personnel Costs and Travel	10,000	10,000	-	-	-	· -	<u> </u>	•	20,000
Supplies and Equipment	-	• • • • • • • • • • • • • • • • • • •	-	-	-	-	•	-	
Fellowships	-	• • • • • • • • • • • • • • • • • • •	·	-	• • -	-	-	-	
Grants and Others			-	•	-	† -	• · · · · · •		
SUB-TOTAL PAHO	10,000	10,000	-	- ;	· •	•	• • •		20,000

Malarious	area:	147	Sq Miles.	Population at risk:	62,000
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Comments:

The attack phase was completed in 1959, and no cases have been found through September, 1960 in the consolidation phase (surveillance).

PAHO will provide one Sanitarian through 1961, to guide the progress of surveillance. Anti-malaria drugs have already been provided.

TRINIDAD AND TOBAGO

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	411,310	416,850	408,089	395,000	395,000	-	-	-	2,026,249
GOVT. AND OTHER SOURCES	403,000	408,000	395,000	395,000	395,000	-	-	-	1,996,000
PAHO PORTION :	1				1				
Personnel Costs and Travel	_	-	-	_	-	-	-	-	-
Supplies and Equipment	8,310	8,850	13,089			-	_	-	30,249
Fellowships	·	_	<u>-</u>	_	-	-	_	_	_
Grants and Others	-	-	-		-	-	_	-	-
SUB-TOTAL PAHO	8,310	8,850	13,089	-	-	-	_	-	30,249

Malarious area; 1,976	Sq. Miles.	Population at risk : 594,000	
		i opulation at risk . 221.000	

Comments: Malaria is considered eradicated from Tobago. Part of the population of Trinidad is already in the consolidation phase (surveillance) and the attack phase in the remaining portion is expected to end in 1961. The consolidation phase should be completed in 1964.

PAHO gives technical orientation through Zone Office and Heauquan volument include antimalarial drugs, and the amount budgeted in 1962 will provide for the duration Fellowships had been awarded prior to 1960, and the national personnel are considered well trained. PAHO gives technical orientation through Zone Office and Headquarters personnel. Supplies and equipment include antimalarial drugs, and the amount budgeted in 1962 will provide for the duration of the campaign.

BRITISH GUIANA

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	123,040	136,783	132,189	103,700	50,000	40,000	40,000		625,712
GOVT. AND OTHER SOURCES	97,000	111,000	111,000	87,000	40,000	40,000	40,000	-	526,000
PAHO PORTION :	· ·	•		•	1	:			
Personnel Costs and Travel	12,200	12,200	12,200	8,000	8,000	-	-	-	52,600
Supplies and Equipment	13,840	9,283	8,989	8,700	2,000	_ †	-	-	42,812
Fellowships	-	4,300	_	-	<u>-</u> .		-	-	4,300
Grants and Others	-	-	• •	-	- 1	- ·	-	·	-
SUB-TOTAL PAHO	26,040	25,783	21,189	16,700	10,000	-	-		99,712

Malarious area: 60,000

Sa Miles

Population ct risk . 30,000

Comments: Malaria has been eradicated from the heavily populated coastal region of British Guiana. In the interior, due to dispersion of the population and difficulties of travel, the addition of the antimalarial drug, chloroquin, to common salt is to be employed during the attack phase which will begin in 1961, and end in 1964. The consolidation phase (surveillance) will end in 1967.

PAHO provides one sanitarian through 1964, plus four consultant months during each of 1960, 1961, and 1962. Supplies and equipment include purchase of mixing equipment for treating salt in 1960, as well as antimalarial drugs for the radical cure of cases detected, through 1964. One fellowship will be awarded in 1961, to study similar attack methods underway in Brazil and Peru. PAHO costs for supplies and equipment have been reduced, in 1962, in view of previously uncommitted UNICEF participation.

ESTIMATED REQUIREMENTS FOR THE PAHO SPECIAL MALARIA FUND INTERCOUNTRY AND REGIONAL ACTIVITIES

Project title: AMRO-117, Malaria Technical Advisory Services, Zone I

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	104,069	122,889	75,000	40,000	40,000	18,000	-	-	399,958
Supplies and Equipment	1,600	1,600	1,000	1,000	1,000	-	-	-	6,200
Grants and Other	-	-	-	-	_	-	_	-	-
TOTAL, PAHO:	105,669	124,489	76,000	41,000	41,000	18,000	-	-	406,158

Description of activity: This project provides for a Zone Advisory Team for the malaria activities in the Caribbean to advise and assist international personnel assigned to country projects, as well as give assistance in the widely scattered islands, which individually are too small to require full-time international personnel. Staff consists of: Two Medical Officers; one Engineer; one Entomologist; one Administrative Methods Consultant; one Laboratory Adviser; one Sanitarian; and a secretary. Office supplies and common services are also budgeted.

Schedule of activity: In accordance with the estimated time-table for the country projects of Zone I, as previously described, personnel for this project will be withdrawn as follows: the Administrative Methods Consultant and the Engineer in 1961; the Laboratory Adviser, Entomologist and Sanitarian in 1962; one Medical Officer and the Secretary in 1964; the second Medical Officer in 1965. By this time it is expected that all programs will be either in the maintenance phase, or well advanced into the consolidation phase so that no international staff will be necessary.

Zone II

Zone II comprises the countries of Cuba, the Dominican Republic, Haiti and Mexico. The Zone Office is located in Mexico City,

CUBA		
	Country	

Country									
	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	335,171	871,470	665,735	669,300	660,000	270,000	270,000	270,000	4,011,676
GOVT. AND OTHER SOURCES	300,000	800,000	600,000	600,000	600,000	250,000	250,000	250,000	3,650,000
PAHO PORTION :	!	•	•	•	i		:		
Personnel Costs and Travel	24,050	57,170	51 , 435.	55 ,00 0	55,000	18,000	18,000	18,000	296,655
Supplies and Equipment	6,821	10,000	10,000	10,000	5,000	2,000	2,000	2,000	47,821
Fellowships	4,300	4,300	4,300	4,300	-	-	-	_	17,200
Grants and Others		· -	<u>-</u>	-	- :	-	. .	-	-
SUB-TOTAL PAHO	35,171	71,470	65,735	69,300	60,000	20,000	20,000	عن,000	<i>5</i> 61,676

Malarious area: 14,132 Sq Miles. Population at risk 2,100,000

Cuba is completing the preparatory phase during 1960, and plans to begin the attack phase in 1961.

Although the mosquito is resistant to dieldrin, it is susceptible to DDT, and no technical problems are foreseen. Should the program continue on schedule, the attack phase will be completed in 1964, and the conselidation phase (surveillance) in 1967.

PAHO provided a Medical Officer and a Sanitarian during 1960. An Engineer and a second Sanitarian will be added in 1961, all to continue through 1964. The Medical Officer and a Sanitarian will be required for 1965 through 1967. Supplies and equipment provide antimalarial drugs for treatment of cases found, and for elimination of residual foci of infection. A fellowship is provided in each of 1960 through 1963.

DOMINICAN REPUBLIC

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	713,600	772,241	772,942	769,000	772,000	303,000	302,000	280,000	4,684,783
GOVT. AND OTHER SOURCES	645,000	700,000	700,000	700,000	700,000	280,000	280,000	280,000	4,285,000
PAHO PORTION :	-	•	•	•	•				
Personnel Costs and Travel	62,300	65,941	70,942	67,000	70,000	22,000	22,000	_	380,183
Supplies and Equipment	2,000	2,000	2,000	2,000	2,000	1,000	_	-	11,000
Fellowships	4,300	4,300	-	-	. -	-	-	-	8,600
Grants and Others	-	•	-	-	-	-	· · · · · · · · · · · · · · · · · · ·		-
SUB-TOTAL PAHO	68,600	72,241	72,942	69,000	72,000	23,000	22,000	-	399,783

Malarious area; 15,829 Sq. Miles Population at risk 2,418,000

Comments: The attack phase of the program had to be suspended during 1960, due to resistance by the mosquito to dieldrin. The Government was not able to finance complete coverage with DDT during 1960. It is expected that complete coverage with insecticides will be achieved during 1961, and will have to be prolonged through 1964. The consolidation phase (surveillance) will last through 1967. PAHO currently provides and expects to continue technical personnel as follows: a Medical Officer (through 1966), an Engineer (through 1964), and two Sanitarians (one through 1964, one through 1966). Antimalarial drugs are budgeted to treat cases as found, and to wipe out residual foci during surveillance. Fellowships are provided in 1960 and 1961.

HAITI

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	_	-	-	_	_	-	-	-	-
GOVT. AND OTHER SOURCES		-	-	-	-	-	•	-	-
PAHO PORTION :									
Personnel Costs and Travel	_	-	-	-	-	-	-	-	-
Supplies and Equipment	-	-	-	-	-	-	-	_	-
Fellowships	-	-	-	-	_	-	-	_	-
Grants and Others	-	-	-	-	-	-	-	-	_
SUB-TOTAL PAHO	_	300,000	300,000	300,000	300,000	50,000	50,000	20,000	1,320,000

Malarious	area;_	7, 374	Sq. Miles.	•	Population at risk :	2,800,000
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Comments:

The program was suspended in 1959, due to financial difficulties. Based upon cost estimates for resumption of operations, and tentative plans of Government and other sources, PAHO expects to be required to budget \$300,000 per year for consultant services, drugs, fellowships and other items.

MEXICO Country

	1960	1961	1000	1963	1964	1965	1966	1967	Total
TOTAL COST	7,841,606	3,996,000	2 ,9 08,000	2,846,000	-	-	· -	-	17,591,606
GOVT, AND OTHER SOURCES	7,720,000	3,871,000	2,800,000	2,800,000	•	-	-	-	17,191,000
PAHO PORTION :		<u> </u>	•	• •	-				
Personnel Costs and Travel	76,300	90,000	88,000	46,000	-		-	· -	300,300
Supplies and Equipment	41,006	35,000	20,000	-	-	-	-	-	96,006
Fellowships	4,300	-	• •	-	-	_	-	_	4,300
Grants and Others	-		-	• • · · · · · · · · · · · · · · · · · ·	-	_	-	-	
SUB-TOTAL PAHO	121,606	125,000	108,000	46,000	-	-	-	-	400,606

Malarious area: 377,677 Sq. Miles

Population at risk __18,116,000

Comments:

The attack phase is scheduled to be completed in December, 1960. Large areas have already been placed in the consolidation phase (surveillance) in advance of schedule. Spraying will probably have to be continued in troublesome endemic areas for an additional year. More intensive evaluation, particularly during the consolidation phase, is required.

PAHO has provided a Team Leader, Medical Officer, Engineer, Engineering Aide and a Sanitarian. The Engineer will be withdrawn in 1960, and a second Medical Officer and a Health Educator added in 1961 to stengthen the evaluation operations. The Engineering Aide will be withdrawn in 1961, the Health Educator and the Sanitarian in 1962, and the Team Leader and two Medical Officers in 1963. Supplies and equipment include antimalarial drugs for elimination of residual foci found during the consolidation phase (surveillance). A fellowship is provided during 1960 to strengthen epidemiological services.

ZONE III

Zone III comprises British Honduras (Belice)

Costa Rica, El Salvador, Guatemala, Honduras,

Nicaragua, and Panama.

Zone Headquarters are at Guatemala City, Guetemala.

BRITISH HONDURAS

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	87,589	95,443	92,548	45,000	35,000	20,000	-	· -	375,580
GOVT. AND OTHER SOURCES	62,000	68,000	65,000	20,000	20,000	20,000		_	255,000
PAHO PORTION:	1	1]					1	
Personnel Costs and Travel	24,800	26,380	26,497	24,000	14,000	-	-	-	115,677
Supplies and Equipment	789	1,063	1,051	1,000	1,000	-	-	-	4,903
Fellowships		-	-	-	-	-	-	-	
Grants and Others	- :	-	•	- ,	-	<u> </u>	-	-	
SUB-TOTAL PAHO	25,589	27,443	27,548	25,000	15,000	-	•	-	120,580

Malarious area; 8,867	Sq. Miles.	Population at risk :90,0	00
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Comments:

Resistance of the mosquito to dieldrin was discovered in 1959, during the second year of the attack phase, and a shift of insecticide to DDT was required. The program is now proceeding satisfactorily, but the attack phase must be continued through 1962.

PAHO will provide a Medical Officer through 1964, to provide technical advice during the attack phase and to guide the consolidation phase (surveillance), and a Sanitarian through 1963. Supplies and equipment provide for antimalarial drugs for treatment of cases found and elimination of residual foci of infection.

COSTA RICA
Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	353,842	3 89 , 992	333,048	253,000	130,000	110,000		-	1,569,882
GOVT. AND OTHER SOURCES	319,000	349,000	290,000	210,000	110,000	110,000	-		1,388,000
PAHO PORTION :	•		•				:		
Personnel Costs and Travel	26,338	37,149	39,644	40,000	18,000	.		ļ .	161,131
Supplies and Equipment	4,204	3,843	3,404	3,000	2,000		_	ļ .	16,451
Fellowships	4,300	-	-	-		_	·	_	4,300
Grants and Others	-		-	-	•	-	-	-	
SUB-TOTAL PAHO	34,842	40,992	43,048	43,000	20,000	-	-	-	181,882

Malarious	area;	12,172	Sq.	Miles
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Population at risk: 361,000

Comments:

Although the attack phase was originally scheduled to end in 1961, epidemiological studies show transmission continues along the Pacific coastal area. The reasons for this are not yet known, and special studies are underway to resolve the problem. Plans are made for continuation of the attack phase through 1963 in this region, and for completion of the consolidation phase (surveillance) at the end of 1965. Depending upon the results of the epidemiological studies, these plans may have to be extended.

PAHO provides a Medical Officer, an Entomologist and two Sanitarians, who will continue through 1963. The Medical Officer will be required in 1964. Antimalarial drugs are provided through 1964, on a gradually reduced scale. A fellowship was provided in 1960.

EL SALVADOR

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	847,494	875,604	879,022	671,000	671,000	279,000	273,000	256,000	4,572,120
GOVT. AND OTHER SOURCES	794,000	800,000	810,000	600,000	600,000	240,000	240,000	240,000	4,324,000
PAHO PORTION :									
Personnel Costs and Travel	48,504	69,000	64,000	64,000	64,000	34,000	28,000	16,000	387,504
Supplies and Equipment	690	2,304	5,022	7,000	7,000	5,000	5,000	_	32,016
Fellowships	4,300	4,300			-	-	-	-	8,600
Grants and Others	,		* ·						
SUB-TOTAL PAHO	53,494	75,604	69,022	71,000	71,000	39,000	33,000	16,000	428,120

Malarious area: 7,452 Sq. Miles. Population at risk 1,440,000

Comments: Resistance to DDT and dieldrin was discovered in 1958, and required operational changes. Transmission of malaria continues, although there is evidence that DDT is effective for a short period after application. Special epidemiological studies are underway, and no prediction can be made as to when the attack phase might terminate, thus, the attack phase of the program will have to be prolonged. For budgetary purposes, it is assumed that the attack phase will continue through 1964.

PAHO is providing a Medical Officer, an Engineer, two Sanitarians and an Entomologist. All will be required through 1964, at which time the Engineer, a Sanitarian and the Entomologist will be withdrawn. The second Sanitarian will be withdrawn in 1966, and the Medical Officer in 1967. Supplies and equipment include antimalarial drugs for treatment of cases. Fellowships are provided in 1960 and 1961, to strengthen the epidemiological staff of the program.

GUATEMALA Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	1,308,197	1,346,403	1,196,129	498,000	498,000	474,000	-		5,320,729
GOVT. AND OTHER SOURCES	1,227,000	1,246,000	1,100,000	450,000	450,000	450,000	-	1	4,923,000
PAHO PORTION :				•	•			1	
Personnel Costs and Travel	61,499	78,366	75,616	40,000	40,000	24,000	-	-	319,481
Supplies and Equipment	15,398	17,737	16,213	8,000	8,000	-	-	·	65,348
Fellowships	4,300	4,300	4,300	• •		-	•	_	12,900
Grants and Others	-	t	-	•	• -	_	- -		
SUB-TOTAL PAHO	81,197	100,403	96,129	48,000	48,000	24,000	-		397,729

Malarious area: 31,035 Sq. Miles. Population at risk 1,544,000

Comments:

The attack phase will be prolonged beyond the original schedule, since resistance by the mosquito to dieldrin required a shift to DDT in the third year of the attack phase. The incidence of the disease has been reduced sharply, except in certain limited areas in which the mosquito is resistant to both dieldrin and DDT. Larviciding and mass treatment with drugs are being undertaken in these areas. The attack phase is expected to end in 1962, and the consolidation phase (surveillance) in 1965.

AMET'AU

PAHO provides a Medical Officer, an Engineer, three Sanitarians and an Entomologist. The Engineer, a Sanitarian and the Entomologist will be withdrawn in 1962; one Sanitarian in 1964; one Sanitarian in mid-1965; and the Medical Officer at the end of 1965. Supplies and equipment include antimalarial drugs for treatment of cases, mass treatment of population in certain areas of double resistance, and for elimination of residual foci during the consolidation phase (surveillance). Fellowships are provided in 1960, 1961 and 1962 to strengthen epidemiological services.

HONDURAS

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	819,857	989,052	973,890	730,000	310,000	296,000	280,000	•	4,398,799
GOVT. AND OTHER SOURCES	760,000	911,000	900,000	700,000	280,000	280,000	280,000	-	4,111,000
PAHO PORTION :	}			•			;		
Personnel Costs and Travel	46,291	67,000	67,000	25,000	25,000	16,000	- (-	246,291
Supplies and Equipment	9,266	6,752	6,890	5 ,0 00	5,000	- '	-	-	32,908
Fellowships	4,300	4,300	-	-	-	- .	-	-	8,600
Grants and Others	-	-	-	· · · · · · · · · · · · · · · · · · ·	<u> </u>	-	-	-	
SUB-TOTAL PAHO	59,857	78 ,05 2	73,890	30,000	30,00 0	16,000	· ·	•	287,799

Malarious area: 33,741 Sq Miles Population at risk 1,347,000

<u>Comments</u>: The attack phase is expected to end in December, 1963. Although the mosquito is resistant to both DDT and dieldrin in certain limited areas, these are so far confined and no technical difficulties are foreseen. The consolidation phase (surveillance) will continue through 1966, at which time the program should terminate.

PAHO provides a Medical Officer, an Engineer, two Sanitarians, and an Entomologist. The Engineer, one Sanitarian and the Entomologist will be withdrawn in 1963, the second Sanitarian in 1964, and the Medical Officer in 1965. Antimalarial drugs are provided for treatment of cases, and for elimination of residual foci during the consolidation phase (surveillance). Fellowships for strengthening epidemiology are provided in 1960 and 1961.

NICARAGUA

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	771,827	760,500	769,900	770,000	321,000	308,000	290,000	-	3,991,227
GOVT. AND OTHER SOURCES	711,000	701,000	710,000	710,000	290,000	290,000	290,000	-	3,702,000
PAHO PORTION :	• •-		•	•	- !	!	•		-
Personnel Costs and Travel	50,896	53,000	54,000	54,000	27,000	16,000	-	-	254,896
Supplies and Equipment	5,631	6,500	5,900	6,000	4,000	2,000		-	30,031
Fellowships	4,300	- -	-	-	-	· · · · · · · · · · · · · · · · · · ·	-	-	4,300
Grants and Others	· · ·	-			· · · · · · · · · · · · · · · · · · ·	•	- · ·	•	
SUB-TOTAL PAHO	60,827	59,500	59 , 900	60,000	31,000	18,000	· · · · · ·	-	289,227

Malarious area: 49,112 Sq Miles Population at risk 1,317,000

Resistance by the mosquito to dieldrin forced a change to DDT in 1959, and an administrative reorganization. The attack phase will have to be prolonged beyond the original schedule. At present the incidence of malaria is greatly reduced, except in four limited areas in which the mosquito is resistant to DDT also. Mass treatment and larviciding are being employed in these areas. It is expected that the attack phase will be completed in 1963, and the consolidation phase (surveillance) in 1966.

PAHO provides a Medical Officer, an Engineer, and two Sanitarians. The Engineer, and a Sanitarian will terminate in 1963; the second Sanitarian in 1964; the Medical Officer in 1965. Supplies and equipment include antimalarial drugs for treatment of cases and elimination of residual foci of infection. A fellowship for spraying operations was provided in 1960.

PANAMA

Country

Country		,			:	-	;		
	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	589,761	718,733	726,309	720,000	720,000	312,000	312,000	296,000	4,394,803
GOVT. AND OTHER SOURCES	521,000	647,000	650,000	650,000	650,000	280,000	280,000	280,000	3,958,000
PAHO PORTION:							1	:	
Personnel Costs and Travel	55,889	62,853	63,426	64,000	64,000	29,000	29,000	16,000	384,168
Supplies and Equipment	8,572	8,880	8,583	6,000	6,000	3,000	3,000	_	44,035
Fellowships	4,300	-	4,300	_	-	-	-	_	8,600
Grants and Others	_	-	• • • • • • • • • • • • • • • • • • •		_	- -	-		_
SUB-TOTAL PAHO	68,761	71,733	76,309	70,000	70,000	32,000	32,000	16,000	436,803

Malarious area: 26,447 Sq Miles.

Population at risk 960,000

Comments: The attack phase will have to be prolonged beyond the original plan. The program has not been well organized, and spraying cycles have not been completed. Although the incidence has been lowered in the western portion of the country, it remains high in the central region. The new administration in Panama is reorganizing the National Malaria Eradication Service, and additional funds may be required to provide shorter spraying cycles. It is expected that the attack phase will continue through 1964. when the consolidation phase (surveillance) will begin. The program is expected to terminate in 1967.

PAHO provides a Medical Officer, an Engineer, two Sanitarians, and an Entomologist. The Engineer, a Sanitarian and the Entomologist will continue through 1964; the second Sanitarian through 1966. the Medical Officer through 1967. Antimalarial drugs are provided for treatment of cases and for elimination of residual foci during the consolidation phase (surveillance). One fellowship was provided in 1960 for spraying operations, a second is budgeted in 1962 to prepare for surveillance.

ESTIMATED REQUIREMENTS FOR THE PAHO SPECIAL MALARIA FUND INTERCOUNTRY AND REGIONAL ACTIVITIES

Project title: AMRO-118, Malaria Technical Advisory Services (Zone III)

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	75,000	76,631	72,561	56,∞0	56,000	18,000	18,000	_	372,192
Supplies and Equipment	-	-	-	-	_	-	-	- `	-
Grants and Other	-	-	-	-	-	-	-	-	-
TOTAL, PAHO:	75,000	76,631	72,561	56,000	56,000	18,000	18,000	-	372,192

Description of activity: The purpose of this project is to supplement the technical advice given to the countries of

Zone III and, at the same time, make possible a more direct and intensive supervision over

the work carried out by the international personnel assigned to the different countries. It also

provides specialized advisory services in certain fields in which a consultant for each country

is not required. Included are a Medical Officer, an Engineer, an Administrative Methods Consultant,

and an Entomologist. A Secretary is provided.

Schedule of activity:

In accordance with the estimated time-table for the country projects of Zone III, as previously described, personnel for this project will be withdrawn as follows: The Administrative Methods Consultant in 1962; the Engineer, the Entomologist and the Secretary in 1964; the Medical Officer in 1966.

ZONE IV

Zone IV comprises Bolivia, Colombia, Ecuador and Peru.

Zone Headquarters are at Lima, Perú.

	BOL	I۷	ΊA
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Country									П
	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	664,370	672,062	631,314	537,000	235,000	195,000	175,000	en e	3,109,746
GOVT. AND OTHER SOURCES	561,000	579,000	537,000	487,000	185,000	175,000	175,000	-	2,699,000
PAHO PORTION :						i i j	1		t ^a
Personnel Costs and Travel	85,492	86,530	88,385	45,000	45,000	15,000	·		365,407
Supplies and Equipment	10,378	6,532	5,929	5,000	5,000	5,000	_	-	37,839
Fellowships	7,500	-	_	_ ;	-	_	-	-	7,500
Grants and Others	•		-	-	-		-	-	i,
SUB-TOTAL PAHO	103,370	93,062	94,314	50,000	50,000	20,000	-	•	410,746

Malarious area: <u>325,103</u> Sq. Miles.	Population at risk 888,000
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Comments:

The attack phase by spraying operations should end on schedule in 1962 in all the country except the Departments of Pando and Beni. Due to migration from malarious areas of Brazil which are still untreated, transmission in these Departments has not yet been interrupted, and spraying operations must be continued through 1963. The full team of PAHO consultants will be required through 1962, at which time a reduction of 3 posts (engineer and two sanitarians) will be possible. In 1964, one medical officer and 2 sanitarian posts will be eliminated. Supplies and equipment are limited to antimalarial drugs, for treatment of cases found and for elimination of residual foci of infection. Fellowships are provided in 1960 to prepare for the consolidation phase (surveillance). The program is expected to end in 1966.

COLOMBIA

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	4,191,770	4,255,618	3,859,780	3,296,900	1,327,000	1,322,000	1,295,000	-	19,548,068
GOVT. AND OTHER SOURCES	4,062,000	4,080,000	3,690,000	3,140,000	1,275,000	1,275,000	1,275,000	•	18,797,000
PAHO PORTION :			1		:				
Personnel Costs and Travel	120,470	122,618	123,980	124,000	42,000	42,000	20,000	-	595,068
Supplies and Equipment	5,000	10,000	20,000	20,000	10,000	5,000	-	-	70,000
Fellowships	4,300	43,000	25,800	12,900	_	_	-	-	86,000
Grants and Others		-	-	-	-	-	-	•	-
SUB-TOTAL PAHO	129,770	175,618	169,780	156,900	52,000	47,000	20,000		751,068

Malarious area: 396,306 Sq. Miles. Population at risk: 9,000,000

Comments: The attack phase will have to be prolonged beyond the original schedule, since certain areas of civil strife have not yet been able to be incorporated into the program. The attack phase is now expected to end in 1963, and the consolidation phase (surveillance) in 1966. The scheduled reduction of PAHO consultants is as follows: an Engineer, a Statistician and four Sanitarians in 1963; two Sanitarians in 1965; a Medical Officer in mid-1966; and a Medical Officer at the end of 1966. Supplies and equipment provide for antimalarial drugs, in accordance with the expected reduction of the disease. Fellowships are provided each year through 1963 for replacement of professional personnel in this large program.

ECUADOR	
Country	

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	1,312,688	1,101,017	1,100,250	1,097,300	1,093,000	441,000	441,000	417,000	7,003,255
GOVT. AND OTHER SOURCES	1,225,000	1,000,000	1,000,000	1,000,000	1,000,000	400,000	400,000	400,000	6,425,000
PAHO PORTION:	ì		1 4 4 4						
Personnel Costs and Travel	68,063	82,657	83,108	83,000	83,000	36,000	36,000	17,000	488,828
Supplies and Equipment	15,325	14,060	12,842	10,000	10,000	5,000	5,000	-	72,22
Fellowships	4,300	4,300	4,300	4,300	-	-	-	-	17,200
Grants and Others	-	-	-	-	-	-	-	-	
SUB-TOTAL PAHO	87,688	101,017	100,250	97,300	93,000	41,000	41,000	17,000	578,25

Malarious area: 59,262 Sq. Miles. Population at risk: 2,346,000

<u>Comments</u>: The attack phase will have to be prolonged beyond the original schedule. In 1959 and 1960, there was evidence of resistance by the mosquito to dieldrin, and it became necessary to change to DDT throughout the country. Financial and administrative difficulties prevented a rapid and orderly changeover, and the program had to be suspended temporarily. The program has now been given adequate financial and administrative support, and is progressing satisfactorily.

PAHO will be required to provide a full complement to staff (Medical Officer, Engineer, Entomologist, and four Sanitarians) through 1964, at which time the Engineer, Entomologist and two Sanitarians will be withdrawn in 1966, and the Medical Officer in 1967. Antimalarial drugs are provided to treat cases found and to eliminate residual foci of the disease. Fellowships are provided from 1960 through 1963 to cover replacement of national personnel.

PERU

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	1,392,100	1,495,398	1,060,643	915,300	639,000	253,000	247,000	-	6,002,441
GOVT. AND OTHER SOURCES	1,264,000	1,372,000	934,000	789,000	576,000	210,000	210,000	_	5,355,000
PAHO PORTION :									
Personnel Costs and Travel	100,000	112,000	112,000	112,000	57,000	37,000	37,000	-	567,000
Supplies and Equipment	19,500	11,398	10,343	10,000	6,000	6,000	_	**	63,241
Fellowships	8,600	-	4,300	4,300	-	-	-	•	17,200
Grants and Others	-	-	-	-	-	-	-	•	-
SUB-TOTAL PAHO	128,100	123,398	126,643	126,300	63,000	43,000	37,000	_	647,441

Malarious area; 364,180 Sq. Miles. Population at risk: 4,737,000

Comments: The program is being developed in two stages. In the western portion of the country, the attack phase is expected to end on schedule in 1961. The eastern portion was delayed in beginning the attack phase, which will continue through 1963. The consolidation phase (surveillance) will begin in the west in 1962, and will be prolonged concurrently with that of the east through 1966. The Department of Tacna has already entered the consolidation phase.

PAHO provides a Medical Officer, an Engineer, an Entomologist, and six Sanitarians. The Engineer, Entomologist and three Sanitarians will terminate in 1963; two Sanitarians in 1964; the Medical Officer and the sixth Sanitarian in 1966. Antimalarial drugs are provided for treatment of cases and elimination of residual foci. Fellowships are provided in 1960 for strengthening of evaluation operations, and in 1962 and 1963 for replacement of personnel in this large program.

Project title: AMRO-119, Malaria Technical Advisory Services (Zone IV)

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	76,000	76,000	64,000	36,000	18,000	18,000	-	-	288,000
Supplies and Equipment	_	•	-	•••	-	-	_	_	-
Grants and Other	-	-	-	-	-	-	_	-	-
TOTAL, PAHO:	76,000	76,000	64,000	36,000	18,000	18,000	-	-	288,000

Description of activity:

The purpose of this project is to supplement the technical advice given to the countries of Zone IV and, at the same time, make possible a more direct and intensive supervision over the work carried out by the international personnel assigned to the different countries. It also provides specialized advisory services in certain fields in which a consultant for each country is not required. Included are a Medical Officer, an Engineer, and two Administrative Methods Consultants. A Secretary is provided.

Schedule of activity:

In accordance with the estimated time-table for the country projects of Zone IV, as previously described, personnel for this project will be withdrawn as follows: The Entomologist in 1961; the Administrative Methods Consultants in 1962; the Engineer and the Secretary in 1963; and the Medical Officer in 1965.

ZONE V

Zone V comprises Brasil.

Zone Headquarters are at Rio de Janeiro, Brazil.

BRAZIL (Except State of São Paulo)

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	6,930,712	9,264,717	n,449,763	10,862,600	6,833,300	5,454,000	2,264,000	1,244,000	54,303,092
GOVT. AND OTHER SOURCES	6,850,000	9,160,00	11,340,000	10,765,000	6,740,000	5,390,000	2,200,000	1,180,000	53,625,000
PAHO PORTION:									
Personnel Costs and Travel	13,359	15,819	13,400	14,000	14,000	14,000	14,000	14,000	112,578
Supplies and Equipment	45,853	71,698	79,163	75,000	75,000	50,000	50,000	50,000	496,714
Fellowships	21,500	17,200	17,200	8,600	4,300	•	-	•	68,800
Grants and Others	-	-	-	_	-	-	-	-	-
SUB-TOTAL PAHO	80,712	104,717	109,763	97,600	93,300	64,000	64,000	64,000	678,092

Malarious area: 2,788,720 Sq. Miles. Population at risk: 27,166,000

<u>Comments:</u>
This program was planned to be implemented by stages, in accordance with major geographical areas.

Although the attack phase began in the Amazon basin in 1959, and in three northeastern states in 1960, the program is behind schedule, and financial difficulties are the principal problem. Accurate forecasting is impossible at this time.

PAHO provides an Engineer to assist in the organization of spraying operations. Additional advisory services are provided by Zone and Headquarters staff. Antimalarial drugs are provided. Fellowships are provided in 1960, and are reduced in later years, as national training facilities are developed.

BRAZIL - STATE OF SÃO PAULO
Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	1,360,311	1,532,058	1,732,640	1,485,000	526,000	500,000	500,000	•	7,636,009
GOVT. AND OTHER SOURCES	1,287,000	1,460,000	1,660,000	1,425,000	500,000	500,000	500,000	-	7,332,000
PAHO PORTION:									
Personnel Costs and Travel	53 , 3 72	43,990	39,098	40,000	16,000	-	-	•	192,460
Supplies and Equipment	19,939	28,068	33,542	20,000	10,000	_	-	-	111,549
Fellowships	-	-	-	-	_	_	•	•	•
Grants and Others	-	-	-	-	•	-	-	-	
SUB-TOTAL PAHO	73,311	72,058	72,640	60,000	26,000		-	•	304,009

Malarious area;_	88,053	Sq. Miles.	Population at risk : _	10,185,000
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Comments:

The attack phase began in January, 1960. The program is well organized and financed for this phase, and no special problems are anticipated. It is expected that the attack phase will terminate in 1963 as scheduled, and that the Consolidation phase (surveillance) will be completed in 1967.

PAHO provides an Engineer, and three Sanitarians. Two Sanitarians will terminate in 1963, the Engineer and the third Sanitarian in 1964. Antimalarial drugs are provided. Training is provided locally at the School of Hygiene and Public Health.

Project title: AMRO-139, Malaria Technical Advisory Services (Zones V and VI)

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	17,374	15,962	15,250	15,500	15,500	15,500	15,500	15,500	126,086
Supplies and Equipment	_	_	-	-	-	_	_	-	-
Grants and Other	-	-	-	-	-	-	-	-	-
TOTAL, PAHO:	17,374	15,962	15,250	15,500	15,500	15,500	15,500	15,500	126,086

Description of activity:

The project provides supervision over the work carried out by the international personnel assigned to Zone V and VI, and gives direct assistance to countries where full-time international personnel are not required. A Medical Officer is provided.

Schedule of activity:

This project is expected to continue through 1967, in view of the development of activities in Brazil, as described above.

ZONE VI

Zone VI comprises Argentina, Chile, Paraguay and Uruguay.

Zone Headquarters are at Buenos Aires, Argentina.

PARAGUAY Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	428,757	668,788	672,788	664,000	279,000	265,000	250,000	-	3,228,333
GOVT. AND OTHER SOURCES	375,000	600,000	600,000	600,000	250,000	250,000	250,000	-	2,925,000
PAHO PORTION :									
Personnel Costs and Travel	37,133	57,000	61,000	61,000	26,000	15,000	-	-	257,133
Supplies and Equipment	3,724	3,188	3,188	3,000	3,000	-	-	_	16,100
Fellowships	12,900	8,600	8,600	-	-	-	-	•	30,100
Grants and Others	-	_	-	-	-	-	-	-	-
SUB-TOTAL PAHO	5 3,757	68,788	72,788	64,000	29,000	15,000	-	•	303,333

Malarious area; <u>30,000</u> Sq. Miles.	Population at risk : 861,000
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Comments:

PARAGUAY

The attack phase will have to be prolonged beyond the period originally scheduled. Evaluation activities in areas previously thought to be non-malarious have shown evidence of transmission, and these areas therefore had to be incorporated into the program at mid-point of the attack phase. Additional funds for more frequent spraying will be required. This phase is now expected to be completed in 1963, and the consolidation phase (surveillance) in 1966.

PAHO provides a Medical Officer, an Engineer, two Sanitarians and one Entomologist (from 1961). The Engineer, one Sanitarian and the Entomologist will terminate in 1963; the second Sanitarian in 1964, and the Medical Officer in 1965. Antimalarial drugs are provided for treatment of cases and for elimination of residual foci during surveillance. Fellowships are provided in each of 1960, 1961 and 1962 to strengthen evaluation operations and prepare for surveillance.

ARGENTINA

Country

	1960	1961	1962	1963	1964	1965	1966	1967	Total
TOTAL COST	405,052	414,800	384,800	140,000	140,000	135,000	-	_	1,619,652
GOVT, AND OTHER SOURCES	390,000	400,000	370,000	135,000	135,000	135,000	-	-	1,565,000
PAHO PORTION:	1								
Personnel Costs and Travel	.	-	-	-	_	-	_	-	-
Supplies and Equipment	6,452	6,200	6,200	5,000	5,000	-	-	-	28,852
Fellowships	8,600	8,600	8,600	_	-	-	-	-	25,800
Grants and Others	1	_	_	_	_	-	-	-	_
SUB-TOTAL PAHO	15,052	14,800	14,800	5,000	5,000	-	_	-	54,652

Malarious area: 94,131 Sq. Miles. Population at risk - 2,088,000

Comments: The attack phase by spraying operations should end on schedule in December, 1962 with no technical difficulties now foreseen. Supplies and equipment are limited to antimalarial drugs, for treatment of cases found, and for elimination of residual foci of infection. Fellowships to prepare for the consolidation (surveillance) phase are included in 1961 and 1962. (Technical advice is provided by Zone Office and Headquarters personnel). The program is expected to end in 1965.



Project title: AMRO-90, Malaria Technical Advisory Services (Regional)

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	132,611	103,382	79,250	51,250	51,250	-	-	-	417,743
Supplies and Equipment	5,700	3,200	3,200	2,000	2,000	-	-	-	16,100
Grants and Other	-	-	-	-	-	-	-	-	-
TOTAL, PAHO:	138,311	106,582	82,450	53,250	53,250	-	•	-	433,843

Description of activity: The purpose of the project is to provide advice to Governments in several specialties, and to supervise the activities of international personnel assigned to countries to work in these specialties. A Parasitologist, an Entomologist and a Specialist in motor vehicle management and maintenance are provided. For flexibility and economy, the group is based in Bogota, Colombia. A secretary is provided.

Four additional positions are provided to establish a pool of qualified personnel to meet a variety of needs. Two Medical Officers and two Engineers are provided. These serve as substitute personnel in country projects to cover periods of home leave or illness of project staff. They also provide additional consultative service to certain projects, particularly the larger ones.

Supplies and equipment, principally for laboratory work, are provided, as well as provision for cost of common services.

Schedule of activity:

In accordance with the expected development of the malaria eradication campaign in the Americas, the following schedule has been established for the withdrawal of personnel from this project. A Medical Officer and an Engineer will be withdrawn from the pool of consultants in 1961; the second Medical Officer and second Engineer in 1962. The Specialist in Motor Vehicle Management and Maintenance, the Parasitologist, the Entomologist, and the Secretary will be withdrawn in 1964.

Project title: __AMRO-135, Malaria Eradication Trainees

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	66,200	30,000	30,000	-	-	-	-	-	126,200
Supplies and Equipment	-	-	-	-	-	-	-	-	-
Grants and Other	-	-	-	-	-	-	-	-	-
TOTAL, PAHO:	66,200	30,000	30,000	-	-	-	-	_	126,200

Description of activity:

Owing to the shortage of experienced workers in malaria eradication in the Americas, the Organization has been forced to train its staff members in malaria eradication techniques in order to carry out its function of providing technical advisory services in this field.

Schedule of activity:

Provision is made for training one physician and one engineer in each of 1961 and 1962. In 1963 and beyond, it should be possible to meet additional needs for staff through reassignment of personnel from projects being terminated.

Project title: __AMRO-122, Research and Development of Insecticide Application Equipment

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	-	11,700	•	-	-	-	-	-	11,700
Supplies and Equipment	5,000	-	_	_	_	-	_	-	5,000
Grants and Other	-	-	_	-	-	-	-	_	-
TOTAL, PAHO:	5,000	11,700	-	•	-	•	-	-	16,700

Description of activity:

The equipment used for application of insecticides can be improved. In 1960, field trials were carried out in El Salvador on sprayers of a new design. Provision is made for a Short Term Consultant in 1961 for additional trials.

Schedule of activity:

No specific plans are made beyond 1961.

Project title: AMRO-197, Research on the Resistance of Anophelines to Insecticides

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	-	-	-	-	-	-	-	-	-
Supplies and Equipment	-	-	-	-	-	-	_	_	-
Grants and Other	20,000	20,000	20,000	-	-	-	-	_	60,000
TOTAL, PAHO:	20,000	20,000	20,000	-	-	-	-	-	60,000

Description of activity:

This project provides a grant to the Johns Hopkins University, School of Hygiene and Public Health, and permits the maintenance of susceptible and resistant colonies of Anophelines. Basic studies of the genetics of these strains are carried on. The insect colonies are available for use by workers in other scientific centers.

Schedule of activity:

It is planned to continue the grant through 1962.

Project title: AMRO-199, Anopheline Susceptibility Testing

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	-	-	-	-	-	-	-	-	-
Supplies and Equipment	10,000	10,000	10,000	10,000	-	-	-	-	40,000
Grants and Other	-	-	-	-	-	-	-	-	-
TOTAL, PAHO:	10,000	10,000	10,000	10,000	•	-	-	_	40,000

Description of activity:

The project provides the supplies and equipment for all susceptibility testing being carried out in the Americas. For administrative simplicity, purchases are made by Headquarters and furnished to programs as required.

Schedule of activity:

This project will continue through 1963. It is expected that requirements for supplies will be reduced a great deal in 1964 and beyond, as a number of countries finish the attack phase. Any additional requirements may be met from individual project funds.

Project title: AMRO-114, Training Center for Malaria Eradication (Mexico)

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	-	-	-	-	-	-	-	-	-
Supplies and Equipment	-	-	-	-	-	-	-	-	-
Grants and Other	11,260	11,260	-	-	-	-	-	-	22,520
TOTAL, PAHO:	11,260	11,260	-	-	-	-	-	-	22,520

Description of activity:

This project provides a grant to the National Commission for Malaria Eradication of Mexico, to carry out training activities in malaria eradication. The grant permits the Department of Training to supplement its staff for teaching national personnel, so that personnel from other countries may be trained as well. Bilingual personnel are available for assistance in field training of English speaking personnel.

Schedule of activity:

This project is expected to terminate in 1961.

Project title: AMRO-137, Training Center for Malaria Eradication (São Paulo)

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	-	-	-	-	-	-	-	-	-
Supplies and Equipment	-	-	-	-	-	-	-	-	-
Grants and Other	8,586	10,000	10,000	10,000	-	-	-	-	38,586
TOTAL, PAHO:	8,586	10,000	10,000	10,000	•	-	-	-	38,586

Description of activity:

The project provides a grant to the Faculty of Hygiene of the University of São Paulo for additional personnel needed in carrying out courses in malaria eradication techniques. Both national personnel and PAHO-sponsored fellows from other countries are trained at São Paulo.

Schedule of activity:

This project is planned to be carried through 1963. By that time it is expected that the majority of personnel required for the Brazilian malaria eradication program will have been trained.

Project title: AMRO-134, Training Center for Malaria Eradication (Kingston)

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	54,092	59,930	64,908	65,000	65,000	-	_	-	308,930
Supplies and Equipment	6,450	4,450	4,450	4,450	4,450	-	-	-	24,250
Grants and Other	9,000	9,000	9,000	9,000	9,000	-	-	-	45,000
TOTAL, PAHO:	69,542	73,380	78,358	78,450	78,450	-	•	-	378,180

Description of activity: This is a collaborative project with the Government of Jamaica and the International Cooperation Administration of the United States. It is the only training center in the Americas which provides instruction in English. In addition to personnel from the Americas, training has been given and is planned for personnel from other Regions. The ICA utilizes the Center to train its own staff, as does the World Health Organization. The Ministry of Health of Jamaica provides space and laboratory facilities; ICA provides an Entomologist, an Engineer, and a Sanitarian. PAHO provides a Medical Officer, a Sanitarian, an Administrative Officer, and clerical and service staff. Provision is also made by PAHO for short term consultants to teach in their specialities.

Schedule of activity:
Due to ICA and WHO requirements in other Regions of the world, it is planned to continue activities at the Training Center through 1964.

Project title: AMRO-220, Malaria Eradication Epidemiology Teams

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	47,000	47,000	94,000	94,000	94,000	94,000		-	470,000
Supplies and Equipment	1,500	1,500	3,000	3,000	3,000	3,000	-	-	15,000
Grants and Other	2,000	2,000	4,000	4,000	4,000	4,000	-	-	20,000
TOTAL, PAHO:	50,500	50,500	101,000	101,000	101,000	101,000	-	-	505,000

Description of activity: This project provides for epidemiology teams which are charged with the following functions: to determine the causes of persisting transmission of the disease in areas where the attack phase has been properly carried out; to study and perfect methods for elimination of such transmission; to train national and international personnel in these epidemiological techniques. Studies have been carried out in Costa Rica and El Salvador. Each team will be composed of a Medical Epidemiologist, a Parasitologist and an Entomologist.

Schedule of activity:

One team is now established in Central America. A second team will be organized during 1962. Both teams will continue to function through 1965.

Project title: _AMRO-196, Insecticide Testing Teams

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	60,989	57,819	60,000	60,000	60,000	-	: 	-	298,808
Supplies and Equipment	4,000	6,200	5,000	5,000	5,000	-	-	-	25,200
Grants and Other	2,500	1,500	1,500	1,500	1,500	-		-	8,500
TOTAL, PAHO:	67,489	65,519	66,500	66,500	66,500	-	-	-	332,508

Description of activity: This project provides two field teams for field studies of insecticides. Since resistance has appeared in a number of mosquitoes in the Americas, both the insecticides currently in use, and alternate insecticides will be tested. In the field, the studies will determine the effectiveness and residual life of insecticides, as well as obtain information about the habits of malaria transmitting mosquitoes in Central and South America. Provision is made for a Senior Entomologist as Project Leader, and for two field teams each staffed by an Entomologist, an Auxiliary Entomologist, and field and laboratory personnel. Provision is made for supplies and equipment, and for common services where required. One team functions in El Salvador, the other in Bolivia.

Schedule of activity: It is planned to continue these studies through 1964.

Project title: _____AMRO-121, Malaria Eradication Evaluation Teams

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	46,000	46,000	46,000	46,000	92,000	92,000	92,000	46,000	506,000
Supplies and Equipment	-	-	-	-	-	-	-	-	-
Grants and Other	-	-	-	-	-	•••	-	•	-
TOTAL, PAHO:	46,000	46,000	46,000	46,000	92,000	92,000	92,000	46,000	506,000

Description of activity: The project provides initially for one evaluation team, to be supplemented with a second in 1964-1966. The functions of the teams are to study carefully all evaluation and surveillance evidence, and eventually to certify the eradication of malaria from a country. The PAHO has been charged with the establishment and maintenance of a "Registry of Areas with Malaria Eradicated"; the teams will be charged with this.

<u>Schedule of activity:</u>

One team is expected to function until 1967. A second team is expected to function in the period 1964-1966.



Project title: Hq. Staff and Zone Office Clerks

PAHO REQUIREMENTS	1960	1961	1962	1963	1964	1965	1966	1967	Total
Personnel, Incl. Travel	187,876	168,000	145,000	145,000	123,000	110,000	110,000	110,000	1,098,876
Supplies and Equipment	-	-	-	_	-	-	_	-	_
Grants and Other	15,281	15,000	15,000	15,000	15,000	10,600	10,000	10,000	105,281
TOTAL, PAHO:	203,157	183,000	160,000	160,000	138,000	120,000	120,000	120,000	1,204,157

Description of activity:

In addition to the posts financed at Headquarters from the Regular Budget of the PAHO, a number of posts have been established from the Special Malaria Fund to provide supporting technical and administrative services for the continent-wide program. A proportional amount of common service costs at Headquarters are borne by the Special Malaria Fund.

Schedule of activity:

Hq. Staff and Z.Office clerks

In 1961, it is planned to eliminate posts in the Personnel Section, since the recruitment load is expected to diminish. In 1962, posts in Conference Services and in Fellowships Sections will be eliminated, due to a reduction in malaria activities in those sections. It will be possible to eliminate one technical and one clerical post in 1963, from the Malaria Eradication unit itself. In 1964, two additional posts in the Malaria Eradication unit will be eliminated, as well as all remaining administrative supporting services in the Budget and General Services Sections. The remaining posts in the Malaria Eradication unit, three technical posts and four clerical posts, are expected to be required through 1967. Zone Office clerical posts will be reduced by 1 in 1961, 2 in each of 1962 and 1963, and the last in 1964. Common services costs reflect a proportionate reduction.