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C. ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

In accord with Resolution XXVI of the XIII Meeting of the Directing Council, the fourth revision of the estimated requirements for the PAHO Special Malaria Fund is presented herewith for study by the Directing Council.

This presentation includes estimated total requirements in each year from 1965 through 1969 for individual country programs as well as for zone and regional projects and headquarters. These requirements are shown by source of funds: Government and Other Sources and PAHO/WHO.

The PAHO/WHO section includes information both on the Special Malaria Fund and on financing from the PAHO Regular, WHO Regular, WHO Malaria Eradication Special Account and the Expanded Program of Technical Assistance budgets.

The tables show separately, for PAHO/WHO, the estimated requirements in personnel, supplies and equipment, fellowships, grants and other expenses for each program in which PAHO/WHO participates. Standard PAHO/WHO budgeting methods have been used. All amounts are in U.S. dollars.

The level of requirements for PAHO-SMF funds in 1967, 1968 and 1969 is adversely affected by the anticipated depletion of the WHO-MESA fund, which will provide a substantial amount for the program in 1965 and 1966.

The tables giving a breakdown of personnel by type and year for each program are presented as usual, as well as a short description of the state of the program and the Organization's plans for the future. The collaboration of UNICEF and AID is indicated where applicable.

The requirements of programs in which the Organization does not directly participate are not shown nor are these included in the summary table.

Calculations of the amounts shown were made in May 1965 and are based on information available at that time concerning the progress of the campaigns and their probable duration. Experience has shown that frequent evaluation of programs is necessary and entails frequent revision of expected requirements, particularly for programs struggling against technical problems. The requirements presented in this document should therefore be considered as the minimum expected level.

Progress was made during 1964 in respect to administrative problems of organization, personnel and finances in several important programs and no serious new technical problems arose during the year. However, the difficulties in Central America, which are discussed in Part A of this document increased in severity during 1964 and 1965; available resources were insufficient even to maintain previous gains, and malaria incidence increased, in some places sharply. Efforts are being made by the Governments of the countries concerned to arrange for suitable financing for the 1965-1967 triennium, but the work of eradication has been lengthened and made considerably more difficult by the deterioration which has occurred. Solutions to the technical problems exist and have been elaborated in new long-range plans of operation in the Central American programs and PAHO/WHO is strengthening its advisory staff in Zone III to assure optimum possible coordination of the various campaigns.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Summary

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	44,677,560	55,065,357	54,957,942	41,989,900	29,361,916	226,052,675
GOVT. AND OTHER SOURCES ^{1/}	41,655,000	52,030,000	52,019,000	39,225,000	27,115,000	212,044,000
PAHO/WHO PORTION						
Personnel costs and travel	2,391,853	2,474,564	2,461,402	2,386,650	1,954,266	11,668,735
Supplies and equipment	319,460	285,678	304,400	296,900	246,800	1,453,238
Fellowships	76,585	50,800	23,000	5,100	5,100	160,585
Grants and others	234,662	224,315	150,140	76,250	40,750	726,117
SUB-TOTAL PAHO/WHO	3,022,560	3,035,357	2,938,942	2,764,900	2,246,916	14,008,675

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	76,223	79,761	80,742	84,000	87,000	407,726
PAHO-SMF	1,897,773	1,729,894	2,293,661	2,126,102	1,633,906	9,681,336
WHO-Reg.	277,052	455,001	469,000	458,550	420,328	2,079,931
WHO-MESA	686,246	684,596	-	-	-	1,370,842
WHO-TA	85,266	86,105	95,539	96,248	105,682	468,840
TOTAL	3,022,560	3,035,357	2,938,942	2,764,900	2,246,916	14,008,675

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	42	40	40	38	36
Sanitary Engineer	19	16	14	14	9
Entomologist	10	9	8	7	3
Health Educator	2	2	2	2	1
Sanitary Inspector	54	52	52	47	35
Entomologist Assistant or Entomology Aide	5	6	6	6	1
Others	20	20	20	20	17
TOTAL	152	145	142	134	102

OBSERVATIONS

^{1/} Estimated costs for Jamaica, Trinidad and Tobago, Venezuela and West Indies not included.

Estimates including field projects, Zone Offices supporting services, and Malaria Eradication Branch.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Argentina

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,593,149	1,364,155	1,244,316	1,245,066	835,816	6,282,502
GOVT. AND OTHER SOURCES	1,564,000	1,328,000	1,210,000	1,210,000	800,000	6,112,000
PAHO/WHO PORTION						
Personnel costs and travel	21,549	29,755	31,316	32,066	32,816	147,502
Supplies and equipment	2,500	3,000	3,000	3,000	3,000	14,500
Fellowships	5,100	3,400	-	-	-	8,500
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	29,149	36,155	34,316	35,066	35,816	170,502

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	29,149	36,155	34,316	35,066	35,816	170,502
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	29,149	36,155	34,316	35,066	35,816	170,502

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	1	1	1	1	1
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	1	1	1	1	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	2	2	2	2	2

OBSERVATIONS

UNICEF collaborates in this program.

Attack phase began in 1959, except in the provinces El Chaco and Formosa which are not yet under total coverage with attack measures. It is expected that consolidation phase will be completed in 1970.

PAHO supplies the services of a sanitary engineer and one sanitarian, plus anti-malarial drugs for presumptive treatment of fever cases and radical cure of confirmed malaria cases. Fellowships are granted to help strengthen epidemiological evaluation personnel in preparation for extension of the consolidation phase.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Bolivia

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	644,054	446,744	343,137	255,127	239,117	1,928,179
GOVT. AND OTHER SOURCES	580,000	375,000	270,000	200,000	200,000	1,625,000
PAHO/WHO PORTION						
Personnel costs and travel	59,054	64,744	66,137	50,127	34,117	274,179
Supplies and equipment	5,000	7,000	7,000	5,000	5,000	29,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	64,054	71,744	73,137	55,127	39,117	303,179

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	64,054	71,744	73,137	55,127	39,117	303,179
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	64,054	71,744	73,137	55,127	39,117	303,179

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	2	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	4	4	4	3	2

OBSERVATIONS

UNICEF and AID collaborate in this program.

The program underwent a set-back at the end of 1963 and first part of 1964 because of a severe financial crisis, and while the prospects for eradication are still excellent the achievement of this goal will be delayed by the seeding of malaria parasites which occurred. Attack phase operations continue in the northern frontier region and in areas of persistent transmission in several river valleys.

In addition to consultant personnel, PAHO provides anti-malarial drugs for radical cure of cases and for administration in residual foci in consolidation areas.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Brazil (excl. São Paulo)

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	10,006,785	12,686,827	15,049,164	16,262,164	12,856,514	66,861,454
GOVT. AND OTHER SOURCES	9,660,000	12,375,000	14,700,000	15,910,000	12,500,000	65,145,000
PAHO/WHO PORTION						
Personnel costs and travel	231,185	236,449	244,064	247,064	251,414	1,210,176
Supplies and equipment	110,500	70,278	100,000	100,000	100,000	480,778
Fellowships	5,100	5,100	5,100	5,100	5,100	25,500
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	346,785	311,827	349,164	352,164	356,514	1,716,454

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	334,785	241,549	335,814	340,164	344,514	1,596,826
WHO-Reg.	12,000	70,278	13,350	12,000	12,000	119,628
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	346,785	311,827	349,164	352,164	356,514	1,716,454

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	5	5	5	5	5
Sanitary Engineer	3	2	2	2	2
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	4	4	4	4	4
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	2	2	2	2	2
TOTAL	14	13	13	13	13

OBSERVATIONS

AID collaborates in this program.

In Brazil eradication is programmed in phases extending gradually to cover the entire malarious area. The program received new impetus in 1964 and it is expected that attack phase will have been reached in all areas by 1968. Some areas are scheduled for consolidation phase in 1965.

In addition to consultant services, PAHO/WHO supplies drugs for presumptive treatments, and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Brazil (São Paulo)

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	2,256,815	1,018,384	819,166	400,400	200,400	4,695,165
GOVT. AND OTHER SOURCES	2,240,000	1,000,000	800,000	400,000	200,000	4,640,000
PAHO/WHO PORTION						
Personnel costs and travel	14,915	17,984	18,766	-	-	51,665
Supplies and equipment	200	400	400	400	400	1,800
Fellowships	1,700	-	-	-	-	1,700
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	16,815	18,384	19,166	400	400	55,165

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	16,815	18,384	19,166	400	400	55,165
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	16,815	18,384	19,166	400	400	55,165

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	1	1	1	-	-

OBSERVATIONS

AID collaborates in this program.

This program has developed very satisfactorily from the beginning of attack phase in 1960 and it is expected that the consolidation phase will be completed in 1968. Much care must be taken to guard against re-initiation of transmission by cases imported from neighboring states of Brazil which are less advanced in eradication. The program is undertaking work against Chagas disease as malaria eradication nears completion.

PAHO supplies drugs for treatment of cases and elimination of residual foci, and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Brazil - Training Center for Malaria Eradication - São Paulo

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	5,000	5,000	5,000	5,000	-	20,000
GOVT. AND OTHER SOURCES	1/	1/	1/	1/	-	1/
PAHO/WHO PORTION						
Personnel costs and travel	-	-	-	-	-	-
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	5,000	5,000	5,000	5,000	-	20,000
SUB-TOTAL PAHO/WHO	5,000	5,000	5,000	5,000	-	20,000

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	5,000	5,000	5,000	5,000	-	20,000
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	5,000	5,000	5,000	5,000	-	20,000

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

1/ Government contribution included in Brazil (São Paulo)

OBSERVATIONS

A subsidy is accorded to the Faculty of Hygiene and Public Health of the University of São Paulo to cover the costs of equipment, teaching materials and auxiliary personnel connected with courses on the techniques of malaria eradication. Both national personnel and PAHO fellows receive training in these courses.

Continuation of this program is foreseen through 1968, by which time the need for training is expected to have tapered off.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Colombia

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	3,568,304	3,154,746	2,562,627	1,891,777	1,405,727	12,583,181
GOVT. AND OTHER SOURCES	3,360,000	2,940,000	2,350,000	1,680,000	1,290,000	11,620,000
PAHO/WHO PORTION						
Personnel costs and travel	180,104	189,946	191,227	193,777	97,727	852,781
Supplies and equipment	18,000	18,000	18,000	18,000	18,000	90,000
Fellowships	10,200	6,800	3,400	-	-	20,400
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	208,304	214,746	212,627	211,777	115,727	963,181

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	208,304	214,746	212,627	211,777	115,727	963,181
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	208,304	214,746	212,627	211,777	115,727	963,181

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	2	2	2	2	1
Entomologist	1	1	1	1	-
Health Educator	-	-	-	-	-
Sanitary Inspector	6	6	6	6	4
Entomologist Assistant or Entomology Aide	2	2	2	2	-
Others	-	-	-	-	-
TOTAL	12	12	12	12	6

OBSERVATIONS

Attack phase began in 1958 and at present 6.1 million persons live in areas in consolidation phase. There is still a sparsely-populated area with 362 thousand inhabitants in which no eradication measures are currently in progress. Special measures are being taken in areas of persistent transmission.

PAHO provides anti-malarial drugs for treatment of cases and elimination of residual foci, and fellowships to strengthen the personnel structure of the program.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Costa Rica

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	608,014	643,785	607,398	398,536	203,114	2,460,847
GOVT. AND OTHER SOURCES	537,000	570,000	530,000	320,000	150,000	2,107,000
PAHO/WHO PORTION						
Personnel costs and travel	63,014	65,785	69,398	70,536	45,114	313,847
Supplies and equipment	8,000	8,000	8,000	8,000	8,000	40,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	71,014	73,785	77,398	78,536	53,114	353,847

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	34,658	35,178	35,674	34,174	8,000	147,684
WHO-Reg.	-	-	41,724	44,362	45,114	131,200
WHO-MESA	36,356	38,607	-	-	-	74,963
WHO-TA	-	-	-	-	-	-
TOTAL	71,014	73,785	77,398	78,536	53,114	353,847

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	4	4	4	4	2

OBSERVATIONS

UNICEF collaborates in this program.

This program has progressed well in most areas but limited regions of persistent transmission, thought to be occasioned by excito-repellency of the vector toward DDT and outdoor biting still exist. A change of insecticide to dieldrin in semi-annual cycles was scheduled but could not be put into operation for financial reasons, and outbreaks occurred in consolidation areas during 1964.

Anti-malarial drugs to treat cases and to employ in foci are provided by PAHO/WHO, in addition to consultant personnel.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Cuba

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	2,045,359	1,265,844	812,329	444,574	-	4,577,106
GOVT. AND OTHER SOURCES	1,981,000	1,200,000	750,000	400,000	-	4,331,000
PAHO/WHO PORTION						
Personnel costs and travel	51,959	53,444	51,329	33,574	-	190,306
Supplies and equipment	10,000	10,000	10,000	10,000	-	40,000
Fellowships	1,400	1,400	-	-	-	2,800
Grants and others	1,000	1,000	1,000	1,000	-	4,000
SUB-TOTAL PAHO/WHO	64,359	65,844	62,329	44,574	-	237,106

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	-	-	-	-
WHO-Reg.	64,359	65,844	62,329	44,574	-	237,106
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	64,359	65,844	62,329	44,574	-	237,106

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	-
Sanitary Engineer	1	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	2	2	1	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	4	3	3	2	-

OBSERVATIONS

Attack operations were begun in 1962 and malaria incidence has markedly declined, although transmission has not been completely interrupted as yet. Shortages of equipment and means of transportation have hindered the campaign.

WHO provides consultants, anti-malarial drugs and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Dominican Republic

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,601,619	1,477,219	1,234,727	586,027	296,397	5,195,989
GOVT. AND OTHER SOURCES	1,477,000	1,375,000	1,150,000	500,000	250,000	4,752,000
PAHO/WHO PORTION						
Personnel costs and travel	121,619	94,119	81,727	83,027	43,397	423,889
Supplies and equipment	3,000	3,000	3,000	3,000	3,000	15,000
Fellowships	-	5,100	-	-	-	5,100
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	124,619	102,219	84,727	86,027	46,397	443,989

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	124,619	102,219	84,727	86,027	46,397	443,989
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	124,619	102,219	84,727	86,027	46,397	443,989

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	1	1	1	1
Sanitary Engineer	1	1	1	1	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	2	2	2	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	5	4	4	4	2

OBSERVATIONS

UNICEF collaborates in this program.

Good progress was made in this program from its reorganization in 1962 through 1964; the entire malarious area is in attack phase, some parts in late attack phase. PAHO provides consultants, drugs to treat cases, and fellowships aid for the training of epidemiological personnel.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Ecuador

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,287,583	1,046,213	946,194	691,251	445,620	4,416,861
GOVT. AND OTHER SOURCES	1,165,000	930,000	850,000	630,000	400,000	3,975,000
PAHO/WHO PORTION						
Personnel costs and travel	109,183	102,813	88,194	53,251	39,620	393,061
Supplies and equipment	10,000	10,000	8,000	8,000	6,000	42,000
Fellowships	3,400	3,400	-	-	-	6,800
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	122,583	116,213	96,194	61,251	45,620	441,861

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	101,856	96,722	74,324	40,617	22,607	336,126
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	20,727	19,491	21,870	20,634	23,013	105,735
TOTAL	122,583	116,213	96,194	61,251	45,620	441,861

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	2	2	1	1
Sanitary Engineer	1	1	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	4	3	3	2	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	7	6	5	3	2

OBSERVATIONS

UNICEF and AID cooperate in this program.

Attack phase began in 1957 and was reorganized in 1961. Over a million persons are now in consolidation phase areas, and good results have been achieved in about 70% of the attack phase areas. In the remaining areas persisting transmission is being attacked with special measures suited to the varying causes of persistence.

PAHO/WHO provides personnel, anti-malarial drugs and fellowships. WHO/TA finances a medical officer.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

El Salvador

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,042,879	1,102,722	1,087,032	634,884	486,634	4,354,151
GOVT. AND OTHER SOURCES	913,000	975,000	960,000	500,000	350,000	3,698,000
PAHO/WHO PORTION						
Personnel costs and travel	117,819	113,422	112,732	124,884	126,634	595,491
Supplies and equipment	10,360	10,000	10,000	10,000	10,000	50,360
Fellowships	1,700	4,300	4,300	-	-	10,300
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	129,879	127,722	127,032	134,884	136,634	656,151

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	57,993	33,539	33,787	39,737	39,987	205,043
WHO-Reg.	71,886	94,183	93,245	95,147	96,647	451,108
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	129,879	127,722	127,032	134,884	136,634	656,151

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	2	2	2	2
Sanitary Engineer	1	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	3	3	3	3
Entomologist Assistant or Entomology Aide	1	1	1	1	1
Others	-	-	-	-	-
TOTAL	6	6	6	6	6

OBSERVATIONS

UNICEF and AID collaborate in this program.

Resistance of the vector to both DDT and dieldrin in extensive coastal areas has greatly obstructed the program, and while transmission was interrupted in considerable areas of the country, 1964 saw re-infection spread from problem areas to some of those previously cleared. The Government is making effort to provide an adequate national budget for 1965 and thereafter to permit attack on problem areas at an effective level.

PAHO/WHO provides personnel, drugs for treatment of cases, and fellowships for national staff.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Guatemala

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,944,300	1,982,572	1,893,675	1,453,329	758,089	8,031,965
GOVT. AND OTHER SOURCES	1,807,000	1,837,000	1,750,000	1,300,000	680,000	7,374,000
PAHO/WHO PORTION						
Personnel costs and travel	125,300	128,872	126,975	138,329	63,089	582,565
Supplies and equipment	12,000	15,000	15,000	15,000	15,000	72,000
Fellowships	-	1,700	1,700	-	-	3,400
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	137,300	145,572	143,675	153,329	78,089	657,965

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	67,731	64,683	143,675	153,329	78,089	507,507
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	69,569	80,889	-	-	-	150,458
WHO-TA	-	-	-	-	-	-
TOTAL	137,300	145,572	143,675	153,329	78,089	657,965

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	2	2	2	1
Sanitary Engineer	1	1	1	1	-
Entomologist	1	1	1	1	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	7	7	7	7	3

OBSERVATIONS

AID and UNICEF collaborate in this program.

Attack phase began in 1956 and interrupted transmission in most of the malarious area, but problems of vector resistance to insecticides and large population movements have created areas of persisting transmission. For lack of resources to apply supplementary attack measures in these areas, infection has spread to areas once clear. Budgetary problems are receiving much attention from the Government and it is hoped that during 1965 intensive attack measures can be instituted to regain lost ground and interrupt transmission in all areas.

In addition to personnel, PAHO/WHO provides drugs for treatment of cases and fellowships to train national personnel.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Haiti

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,937,009	1,886,733	1,477,111	1,076,211	659,001	7,036,065
GOVT. AND OTHER SOURCES	1,828,000	1,760,000	1,350,000	950,000	550,000	6,438,000
PAHO/WHO PORTION						
Personnel costs and travel	87,309	111,733	112,111	114,211	99,001	524,365
Supplies and equipment	20,000	15,000	15,000	12,000	10,000	72,000
Fellowships	1,700	-	-	-	-	1,700
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	109,009	126,733	127,111	126,211	109,001	598,065

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	109,009	126,733	127,111	126,211	109,001	598,065
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	109,009	126,733	127,111	126,211	109,001	598,065

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	2	2	2	2
Sanitary Engineer	1	1	1	1	1
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	3
Entomologist Assistant or Entomology Aide	-	1	1	1	-
Others	-	-	-	-	-
TOTAL	6	7	7	7	6

OBSERVATIONS

UNICEF and AID collaborate in this program.

The campaign was reorganized in 1961 and succeeded in reducing incidence markedly and presumably interrupted transmission in areas including about half the population of originally malarious areas. In remaining areas, however, transmission continues despite good insecticide coverage and a pilot program of collective treatment with anti-malarial drugs carried out in 1964 is being expanded to include a population of over half a million.

PAHO is providing personnel (including a co-director of the program), drugs, and a fellowship.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Honduras

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,080,187	1,200,198	1,116,244	585,264	250,157	4,232,050
GOVT. AND OTHER SOURCES	1,023,000	1,137,000	1,050,000	520,000	200,000	3,930,000
PAHO/WHO PORTION						
Personnel costs and travel	51,687	53,198	56,244	57,264	44,157	262,550
Supplies and equipment	5,500	10,000	10,000	8,000	6,000	39,500
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	57,187	63,198	66,244	65,264	50,157	302,050

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	20,653	23,588	23,607	21,857	6,000	95,705
WHO-Reg.	-	-	42,637	43,407	44,157	130,201
WHO-MESA	36,534	39,610	-	-	-	76,144
WHO-TA	-	-	-	-	-	-
TOTAL	57,187	63,198	66,244	65,264	50,157	302,050

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	2	2	2	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	3	3	3	3	2

OBSERVATIONS

UNICEF and AID collaborate in this program.

Attack phase began in 1958 and has succeeded in passing areas with 82% of the population of the originally malarious area into consolidation phase. A problem area exists in the south, however, where resistance of the vector to insecticides and heavy immigration have prevented interruption of transmission. Additional resources are expected to be provided for supplementary attack with a collective drug program in 1965.

PAHO/WHO provides, in addition to consultant personnel, antimalarial drugs for radical cure of cases.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Mexico

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	8,639,707	19,091,132	19,947,314	11,746,509	7,442,214	66,866,876
GOVT. AND OTHER SOURCES	8,500,000	18,952,000	19,800,000	11,600,000	7,300,000	66,152,000
PAHO/WHO PORTION						
Personnel costs and travel	93,807	97,882	106,064	108,659	116,364	522,776
Supplies and equipment	37,000	37,000	37,000	37,000	25,000	173,000
Fellowships	8,600	3,400	3,400	-	-	15,400
Grants and others	300	850	850	850	850	3,700
SUB-TOTAL PAHO/WHO	139,707	139,132	147,314	146,509	142,214	714,876

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	75,168	72,518	73,645	70,895	59,545	351,771
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	64,539	66,614	73,669	75,614	82,669	363,105
TOTAL	139,707	139,132	147,314	146,509	142,214	714,876

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	3	3	3	3	3
Sanitary Engineer	1	1	1	1	1
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	2	2	2	2	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	6	6	6	6	6

OBSERVATIONS

UNICEF collaborates in this program.

Attack phase began in 1957 and interrupted transmission in the major part of the malarious area. Areas of persistent low transmission have remained, primarily on the Pacific Coast of the country. Trials of various combined attack measures have been made and in 1966 it is expected that the government will be able to provide resources for attack on the problem with the intensity technically required.

PAHO/WHO has provided assistance through AMRO - O210, in addition to consultant personnel and drugs for treating cases. A grant for operational research activities has been provided with PAHO/WHO funding (see next page).

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Mexico - 0201

Malaria Eradication in Problem Areas

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	150,000	150,000	75,000	-	-	375,000
GOVT. AND OTHER SOURCES	<u>1/</u>	<u>1/</u>	<u>1/</u>	-	-	<u>1/</u>
PAHO/WHO PORTION						
Personnel costs and travel	-	-	-	-	-	-
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	150,000	150,000	75,000	-	-	375,000
SUB-TOTAL PAHO/WHO	150,000	150,000	75,000	-	-	375,000

1/ Govt. contribution included in Mexico.

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	75,000	-	-	75,000
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	150,000	150,000	-	-	-	300,000
WHO-TA	-	-	-	-	-	-
TOTAL	150,000	150,000	75,000	-	-	375,000

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

Study of the efficacy of various combined attack measures in eliminating the persistent low-level transmission in the problem area of Oaxaca-Guerrero will be carried out with support from PAHO/WHO and the Government of Mexico. Measures to be employed and evaluated will include 4-month cycles of DDT spraying, total case detection coverage, prompt radical treatment of all cases, short collective drug treatment programs in localities of high positivity, rapid ecological studies of all localities and special epidemiological and entomological studies as necessary. The area has a population of 220,000 persons.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Nicaragua

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,865,689	1,691,120	1,707,188	1,137,688	687,888	7,085,780
GOVT. AND OTHER SOURCES	1,727,000	1,560,000	1,570,000	1,000,000	550,000	6,407,000
PAHO/WHO PORTION						
Personnel costs and travel	124,489	118,420	126,488	128,688	130,888	628,973
Supplies and equipment	12,500	11,000	9,000	9,000	7,000	48,500
Fellowships	1,700	1,700	1,700	-	-	5,100
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	138,689	131,120	137,188	137,688	137,888	682,573

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	64,917	54,340	53,628	52,778	51,628	277,291
WHO-Reg.	-	76,780	83,560	84,910	86,260	331,510
WHO-MESA	73,772	-	-	-	-	73,772
WHO-TA	-	-	-	-	-	-
TOTAL	138,689	131,120	137,188	137,688	137,888	682,573

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	2	2	2	2
Sanitary Engineer	1	1	1	1	1
Entomologist	1	1	1	1	1
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	3
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	7	7	7	7	7

OBSERVATIONS

UNICEF and AID collaborate in this program.

Attack operations began in 1957 and have interrupted transmission in areas with about 40% of the population of originally malarious areas, but vector resistance to DDT and dieldrin has created a serious problem area along the Pacific coast and in some inland valleys. Malathion has been employed as an alternative insecticide and larviciding and collective drug treatment programs used on a limited scale with some success, but resources have not been sufficient for adequate attack on the program. The Government is making efforts to increase the budget and it is hoped that this obstacle will be removed in 1965.

PAHO/WHO provides consultant personnel, drugs for treatment of malaria cases and elimination of foci of transmission in consolidation areas, and fellowships to strengthen epidemiological personnel.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Panama

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,367,572	1,471,145	1,048,050	586,035	389,505	4,862,307
GOVT. AND OTHER SOURCES	1,258,000	1,350,000	928,000	480,000	320,000	4,336,000
PAHO/WHO PORTION						
Personnel costs and travel	96,772	111,445	112,050	98,035	63,505	481,807
Supplies and equipment	6,000	8,000	8,000	8,000	6,000	36,000
Fellowships	6,800	1,700	-	-	-	8,500
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	109,572	121,145	120,050	106,035	69,505	526,307

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	43,497	39,768	120,050	106,035	69,505	378,855
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	66,075	81,377	-	-	-	147,452
WHO-TA	-	-	-	-	-	-
TOTAL	109,572	121,145	120,050	106,035	69,505	526,307

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	1	1	1	1	-
Entomologist	1	1	1	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	1	1	1	-
TOTAL	6	7	7	6	3

OBSERVATIONS

UNICEF collaborates in this program.

This program was reorganized in 1962 on a basis of semi-annual cycles of DDT but has not achieved complete and regular coverage of spraying or of evaluation. Incidence has been markedly reduced in a great part of the malarious area but five areas of persistently high transmission remain.

In addition to advisory personnel, PAHO/WHO supplies drugs to treat cases and fellowships to assist in training of national professional personnel.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Paraguay

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	369,967	927,768	1,242,121	1,265,921	1,247,421	5,053,198
GOVT. AND OTHER SOURCES	290,000	850,000	1,161,000	1,185,000	1,165,000	4,651,000
PAHO/WHO PORTION						
Personnel costs and travel	71,367	72,568	75,921	77,421	78,921	376,198
Supplies and equipment	3,500	3,500	3,500	3,500	3,500	17,500
Fellowships	5,100	1,700	1,700	-	-	8,500
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	79,967	77,768	81,121	80,921	82,421	402,198

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	79,967	77,768	81,121	80,921	82,421	402,198
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	79,967	77,768	81,121	80,921	82,421	402,198

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	1	1	1	1	1
Entomologist	1	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	3	3	3	3	3
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	6	5	5	5	5

OBSERVATIONS

A new plan of operations for this program, which has been suspended since March 1961, has been drawn up, but geographical reconnaissance has still to be completed before a new attack phase can be begun. This stage is expected to be reached in the latter part of 1966.

PAHO provides advisory personnel, drugs for treatment of cases and fellowships to strengthen the professional competence of the national staff.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Peru

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	1,389,549	1,167,422	616,124	312,437	146,750	3,632,282
GOVT. AND OTHER SOURCES	1,278,000	1,060,000	540,000	250,000	100,000	3,228,000
PAHO/WHO PORTION						
Personnel costs and travel	93,549	86,422	66,124	52,437	38,750	337,282
Supplies and equipment	18,000	15,000	10,000	10,000	8,000	61,000
Fellowships	-	6,000	-	-	-	6,000
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	111,549	107,422	76,124	62,437	46,750	404,282

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	111,549	107,422	76,124	62,437	46,750	404,282
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	111,549	107,422	76,124	62,437	46,750	404,282

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	1	1	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	4	3	3	2	1
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	6	5	4	3	2

OBSERVATIONS

UNICEF collaborates in this program.

Additional areas were placed in maintenance phase at the beginning of 1965 and it is expected that consolidation phase will be completed in the whole country in 1971, although difficulties are being experienced in the Amazonas region. Two serious outbreaks occurred in consolidation-phase areas during 1964, however, both of which were brought under control.

In addition to consultants, PAHO provides anti-malarial drugs and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

British Guiana

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	73,414	63,332	42,610	25,500	-	204,856
GOVT. AND OTHER SOURCES	54,000	46,000	25,000	25,000	-	150,000
PAHO/WHO PORTION						
Personnel costs and travel	17,214	16,832	17,110	-	-	51,156
Supplies and equipment	500	500	500	500	-	2,000
Fellowships	1,700	-	-	-	-	1,700
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	19,414	17,332	17,610	500	-	54,856

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	19,414	17,332	17,610	500	-	54,856
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	19,414	17,332	17,610	500	-	54,856

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	1	1	1	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	1	1	1	-	-

OBSERVATIONS

UNICEF collaborates in this program.

Transmission has been interrupted in almost the entire country. A chloroquinized-salt program has been utilized as the main attack measure in the interior region of Rupununi, supplemented by DDT spraying since a chloroquine-resistant strain of *P. falciparum* was discovered there in 1962; this combined program has been quite successful. It is expected that the last areas may enter consolidation phase by 1967.

PAHO provides drugs for radical cure of cases and a fellowship.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

British Honduras

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	34,500	34,500	15,500	-	-	84,500
GOVT. AND OTHER SOURCES	34,000	34,000	15,000	-	-	83,000
PAHO/WHO PORTION						
Personnel costs and travel	-	-	-	-	-	-
Supplies and equipment	500		500	-	-	1,500
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	500	500	500	-	-	1,500

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	500	500	500	-	-	1,500
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	500	500	500	-	-	1,500

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

UNICEF collaborates in this program.

Attack phase operations began in 1957 and the entire malarious area had entered consolidation phase by 1962. An outbreak in the Orange Walk area has proved difficult to control and consolidation phase is expected to be extended to 1967.

PAHO provides drugs for treatment of cases.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

French Guiana

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	109,263	98,000	62,000	47,000	32,000	348,263
GOVT. AND OTHER SOURCES	96,000	96,000	60,000	45,000	30,000	327,000
PAHO/WHO PORTION						
Personnel costs and travel	11,263	-	-	-	-	11,263
Supplies and equipment	2,000	2,000	2,000	2,000	2,000	10,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	13,263	2,000	2,000	2,000	2,000	21,263

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	13,263	2,000	2,000	2,000	2,000	21,263
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	13,263	2,000	2,000	2,000	2,000	21,263

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	1	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	1	-	-	-	-

OBSERVATIONS

The entire coastal area, which contains almost 90% of the country's population is in attack phase but the interior of the country, with a population of 4,000, has not yet been brought under attack.

PAHO will provide a sanitarian in 1965, and drugs for treatment of cases.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Surinam

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	385,833	396,720	299,180	219,080	180,680	1,481,493
GOVT. AND OTHER SOURCES	283,000	280,000	200,000	120,000	80,000	963,000
PAHO/WHO PORTION						
Personnel costs and travel	97,633	104,620	92,480	94,080	95,680	484,493
Supplies and equipment	3,500	7,000	5,000	5,000	5,000	25,500
Fellowships	1,700	5,100	1,700	-	-	8,500
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	102,833	116,720	99,180	99,080	100,680	518,493

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	102,833	116,720	99,180	99,080	100,680	518,493
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	102,833	116,720	99,180	99,080	100,680	518,493

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	1	1	-	-	-
Health Educator	1	1	1	1	1
Sanitary Inspector	2	2	2	2	2
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	1	1	1	1	1
TOTAL	6	6	5	5	5

OBSERVATIONS

UNICEF collaborates in this program.

The coastal area continues successfully in consolidation phase but in the interior social difficulties continue to obstruct spraying. A system of hiring local inhabitants in each village to perform house-spraying there is being tried, with considerable success, and a small trial of medicated salt is also being made.

PAHO provides personnel, drugs and fellowships.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO -0200
Malaria Technical Advisory Team

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	116,620	148,008	147,938	151,429	134,339	698,334
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	105,320	135,708	135,638	139,129	122,039	637,834
Supplies and equipment	1,000	1,000	1,000	1,000	1,000	5,000
Fellowships	-	-	-	-	-	-
Grants and others	10,300	11,300	11,300	11,300	11,300	55,500
SUB-TOTAL PAHO/WHO	116,620	148,008	147,938	151,429	134,339	698,334

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	96,263	109,101	147,938	151,429	134,339	639,070
WHO-Reg.	-	17,000	-	-	-	17,000
WHO-MESA	20,357	21,907	-	-	-	42,264
WHO-TA	-	-	-	-	-	-
TOTAL	116,620	148,008	147,938	151,429	134,339	698,334

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	2	2	2	2
Sanitary Engineer	-	-	-	-	-
Entomologist	1	1	1	1	1
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	3	3	3	3	2
TOTAL	6	6	6	6	5

OBSERVATIONS

The objective of this program is to provide consultant services to the various governments concerning certain aspects of their program which do not require long-term consultants, and to assist in the supervision of international personnel assigned to country programs who perform functions related to these specialties.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO - 0201
Malaria Technical Advisory Services (Zone I)

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	41,432	18,432	15,650	15,950	16,250	107,714
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	40,832	17,832	15,050	15,350	15,650	104,714
Supplies and equipment	600	600	600	600	600	3,000
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	41,432	18,432	15,650	15,950	16,250	107,714

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	41,432	18,432	15,650	15,950	16,250	107,714
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	41,432	18,432	15,650	15,950	16,250	107,714

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	2	1	1	1	1
TOTAL	3	1	1	1	1

OBSERVATIONS

This program has provided advisory services to the countries of Zone I and the many small Caribbean islands with malaria eradication programs. As these programs progressively achieve maintenance phase, the need decreases and beginning with 1966 the team will be reduced to one laboratory advisor, presently stationed in Surinam.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO-0203

Malaria Technical Advisory Services (Zone III)

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	82,905	109,557	109,771	112,850	115,550	530,633
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	81,705	107,557	107,771	110,850	113,550	521,433
Supplies and equipment	1,200	2,000	2,000	2,000	2,000	9,200
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	82,905	109,557	109,771	112,850	115,550	530,633

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	109,771	112,850	115,550	338,171
PAHO-SMF	-	-	-	-	-	-
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	82,905	109,557	-	-	-	192,462
WHO-TA	-	-	-	-	-	-
TOTAL	82,905	109,557	109,771	112,850	115,550	530,633

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	2	2	2	2
Sanitary Engineer	1	1	1	1	-
Entomologist	-	-	-	-	-
Health Educator	1	1	1	1	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	2	2	2	2	1
TOTAL	6	6	6	6	3

OBSERVATIONS

This program complements the technical assistance provided to individual country programs in Zone III. As regionalization of malaria eradication activities in the Zone is intensified and the country programs redouble their efforts to overcome the technical problems existing in many of these countries, a strengthened team will be provided to coordinate the activities of the country programs, to supervise international personnel assigned to them and to advise on specialized aspects of the programs.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO - 0204
Malaria Technical Advisory Services (Zone IV)

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	26,132	27,351	27,816	28,316	28,816	138,431
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	26,132	27,351	27,816	28,316	28,816	138,431
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	26,132	27,351	27,816	28,316	28,816	138,431

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	26,132	27,351	27,816	28,316	28,816	138,431
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	26,132	27,351	27,816	28,316	28,816	138,431

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	1	1	1	1	1
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	1	1	1	1	1

OBSERVATIONS

This program rounds out the advisory services provided to the countries of Zone IV and allows closer supervision of international personnel assigned to country programs. The medical officer also functions as chief consultant to Colombia-0200.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO -0209
Insecticide Testing Team

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	114,245	114,692	114,886	115,153	-	458,976
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	58,645	68,692	68,886	69,053	-	265,276
Supplies and equipment	15,600	15,600	15,600	15,600	-	62,400
Fellowships	-	-	-	-	-	-
Grants and others	40,000	30,400	30,400	30,500	-	131,300
SUB-TOTAL PAHO/WHO	114,245	114,692	114,886	115,153	-	458,976

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	114,886	115,153	-	230,039
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	114,245	114,692	-	-	-	228,937
WHO-TA	-	-	-	-	-	-
TOTAL	114,245	114,692	114,886	115,153	-	458,976

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	2	2	2	2	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	2	2	2	2	-
Others	-	-	-	-	-
TOTAL	4	4	4	4	-

OBSERVATIONS

The testing of the efficacy of proposed new insecticides is done by this program. One of the more promising insecticides studied so far, OMS-33 (a carbamate), will be taken through additional stages of testing, beginning with Stage IV in the WHO insecticide testing program (experimental huts) and proceeding to village-scale tests.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO - 0210

Malaria Eradication Epidemiology Team

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	30,948	47,957	58,680	60,480	62,280	260,345
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	30,948	45,357	56,080	57,880	59,680	249,945
Supplies and equipment	-	2,300	2,300	2,300	2,300	9,200
Fellowships	-	-	-	-	-	-
Grants and others	-	300	300	300	300	1,200
SUB-TOTAL PAHO/WHO	30,948	47,957	58,680	60,680	62,280	260,345

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	58,680	60,480	62,280	181,440
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	30,948	47,957	-	-	-	78,905
WHO-TA	-	-	-	-	-	-
TOTAL	30,948	47,957	58,680	60,480	62,280	260,345

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	2	2	2	2	2
Sanitary Engineer	-	-	-	-	-
Entomologist	1	1	1	1	1
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	3	3	3	3	3

OBSERVATIONS

This program provides personnel specialized in epidemiology to study problems of malaria transmission continuing despite adequate normal attack measures. The team is now located in Oaxaca, Mexico, where its first objective is evaluation of an attack on persistent low-level transmission by integration of the best spraying routine, intensive case-finding and complete radical treatment of all cases. Other attack methods will be evaluated later.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Project AMRO - 0211
Seminar, Local Health Services in NEP

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	32,825	-	-	-	-	32,825
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	10,140	-	-	-	-	10,140
Supplies and equipment	2,000	-	-	-	-	2,000
Fellowships	20,685	-	-	-	-	20,685
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	32,825	-	-	-	-	32,825

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	32,825	-	-	-	-	32,825
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	32,825	-	-	-	-	32,825

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

The second Seminar on the rôle of general public health services in malaria eradication was held in March 1965 in Cuernavaca, Mexico, with attendance from the countries of Central America, Mexico, Panama and the Caribbean region. The final reports of this and the preceding Seminar held for South American countries are being combined and will be issued as a single document.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS

Project AMRO - 0212

Resistance of Malaria Plasmodia Strains to Drugs

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	5,485	-	-	-	-	5,485
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	-	-	-	-	-	-
Supplies and equipment	500	-	-	-	-	500
Fellowships	-	-	-	-	-	-
Grants and others	4,985	-	-	-	-	4,985
SUB-TOTAL PAHO/WHO	5,485	-	-	-	-	5,485

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	-	-	-	-	-	-
WHO-Reg.	5,485	-	-	-	-	5,485
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	5,485	-	-	-	-	5,485

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	-	-	-	-	-
TOTAL	-	-	-	-	-

OBSERVATIONS

The Strain Screening Center for testing plasmodium resistance to drugs was closed at the end of March, 1965. Resistance to chloroquine was confirmed in a number of strains from Brazil, Colombia, Venezuela and British Guiana, and the effects of different drugs, particularly various dosage schedules of pyrimethamine and sulfonamides, were studied.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Zone Offices Supporting Services

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	15,387	16,402	17,097	17,792	18,487	85,165
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	15,387	16,402	17,097	17,792	18,487	85,165
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	-	-	-	-	-	-
SUB-TOTAL PAHO/WHO	15,387	16,402	17,097	17,792	18,487	85,165

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	-	-	-	-	-	-
PAHO-SMF	15,387	16,402	17,097	17,792	18,487	85,165
WHO-Reg.	-	-	-	-	-	-
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	15,387	16,402	17,097	17,792	18,487	85,165

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	-	-	-	-	-
Sanitary Engineer	-	-	-	-	-
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	3	3	3	3	3
TOTAL	3	3	3	3	3

OBSERVATIONS

To provide supporting administrative services for the hemisphere-wide program, 3 posts were established. These services will be maintained at reduced levels.

ESTIMATED REQUIREMENTS FOR MALARIA ERADICATION IN THE AMERICAS
Malaria Eradication Branch

	1965	1966	1967	1968	1969	TOTAL
TOTAL COST	205,030	210,677	212,897	218,150	223,150	1,069,904
GOVT. AND OTHER SOURCES	-	-	-	-	-	-
PAHO/WHO PORTION						
Personnel costs and travel	181,953	185,212	186,607	190,850	194,850	939,472
Supplies and equipment	-	-	-	-	-	-
Fellowships	-	-	-	-	-	-
Grants and others	23,077	25,465	26,290	27,300	28,300	130,432
SUB-TOTAL PAHO/WHO	205,030	210,677	212,897	218,150	223,150	1,069,904

SOURCES OF PAHO/WHO FUNDING

SOURCE	1965	1966	1967	1968	1969	TOTAL
PAHO-Reg.	76,223	79,761	80,742	84,000	87,000	407,726
PAHO-SMF	-	-	-	-	-	-
WHO-Reg.	128,807	130,916	132,155	134,150	136,150	662,178
WHO-MESA	-	-	-	-	-	-
WHO-TA	-	-	-	-	-	-
TOTAL	205,030	210,677	212,897	218,150	223,150	1,069,904

PAHO/WHO PERSONNEL

CATEGORY	1965	1966	1967	1968	1969
Medical Officer	4	4	4	4	4
Sanitary Engineer	1	1	1	1	1
Entomologist	-	-	-	-	-
Health Educator	-	-	-	-	-
Sanitary Inspector	-	-	-	-	-
Entomologist Assistant or Entomology Aide	-	-	-	-	-
Others	7	7	7	7	7
TOTAL	12	12	12	12	12

OBSERVATIONS

The Branch coordinates and advises the malaria eradication programs in the hemisphere and directs and supervises international field personnel. Evaluation of the progress of country programs in malaria eradication is made by headquarters personnel, assisted by zone and country advisers; technical advice on specialized aspects of country programs is provided, and operational research projects to meet problems in the Americas are directed and coordinated with the WHO general research program in eradication means and techniques.