

## Chapter XII

### PROGRAM FUNDING

During the period November 1946 - October 1949, the Rockefeller Foundation financed the entire Malaria Research Center, including local operating expenses, salaries for locally recruited technicians, imported material and equipment antimalaria drugs and a vehicle. Only the salaries of the three local medical officers were paid by the Provincial Government. After the establishment of TAMRI in April 1948, the Provincial Government increased its budget to pay for the salaries of all TAMRI personnel, the administrative overhead, and some limited operating expenses. From November 1949 - December 1951, JCRR contributed the operating expenses for TAMRI to continue the necessary research and control activities. The funds provided toward the malaria research and control program is shown in Table 46.

**Table 46**

*Source of Funds - November 1946 through December 1951*

Source of Funds	Nov. 1946 thru Dec. 1947	Jan. 1948 thru Oct. 1949	Nov. 1949 thru Dec. 1950	Jan. 1951 thru Dec. 1951
Rockefeller Foundation	US\$10,000	US\$40,000	-----	-----
JCRR	-----	-----	US\$37,646	US\$344,770
Provincial Government*/	salaries for 3 medical officers	salaries for 3 medical officers	salaries and maintenance of TAMRI	salaries and maintenance of TAMRI

\*/ Monetary figures not available.

The four-year Malaria Control Program was originally to be launched in January 1952. The project was presented in October 1951 at a meeting including representatives of the NHA, PHA, TAMRI, MSA/CUSA(USA), JCRR and WHO.

The project was approved, but the funds were to be released each year, depending on the needs and the progress of work. In November 1952 a Malaria Advisory Committee was formed, consisting of representatives from all the above-mentioned organizations. This Committee met once or twice every year to discuss the progress of the program, the plan of work, the coordination with the military malaria control activities, the requirement of insecticides, and spraying equipment and budgetary needs. On the recommendations of the Committee, the funds were provided for the program through TAMRI, which was responsible for the cost of insecticides, sprayers, subsistence and lodging for foremen and supervisors during training periods, and transportation costs for DDT and sprayers from port of entry or from manufacturers to each county health center.

The county governments were responsible for the costs of printing posters and handbills, traveling expenses of the county supervisors, and the costs for educational activities. Through the *Taiwan Provincial Gazette*, the county government was requested to budget NT\$120 for every 7,000 population to be included in the spraying program. The budgeted fund was to be used solely for educational (NT\$70) and supervisory activities (NT\$50).

The township offices were responsible for all local operational expenses, including the wages of spraymen and helpers, the per diem for foremen and township supervisors, transportation of DDT and sprayers from county health center to their respective townships, and provision of accessory equipment such as mixing cans, repair kits and water containers. Also through the *Provincial Gazette*, the townships listed in the spraying program were obliged to budget NT\$1.00 per capita to cover these expenditures.

The annual financial contributions to the malaria eradication program during 1952 - 1957 (attack phase) are summarized in Table 47, by source of funds. The government funds in Table 47 included the entire TAMRI budget, the county malaria budget (NT\$120 per 7,000 population) and the township malaria fund (NT\$ 1.00 per capita). The TAMRI budgets were spent not only for the DDT spraying activities, but also for the general administrative work, research activities, epidemiological assessment of the control program, and local expenditures for the international team and visitors. The county and township budgets were solely for spraying operations. The MSA/CUSA and JCRR funds were for insecticides, sprayers and vehicles. For local purchases, funds were usually provided in NT\$ through TAMRI or PHA; for importation, orders were placed directly by the agencies. The WHO fund was mainly for the salaries and per diem of the Malaria Team and a limited amount of laboratory and field equipment and supplies.

**Table 47**  
*Annual Financial Contributions, by Source of Funds*  
*1952 - 1957 (Attack Phase)*

Source of Funds	1952	1953	1954	1955	1956	1957
Governments*/ (in NT\$)	473,182	2,470,661	9,823,728	9,463,400	10,886,600	2,762,500
MSA/CUSA (in US\$)	47,500	440,800	951,180	616,080	474,430	88,781
JCRR (in US\$)	48,240	49,100	50,460	0	3,810	3,325
WHO (in US\$)	45,000	44,000	34,000	25,500	25,500	14,090
Total: - in US\$ or - in NT\$	186,680 1,922,760	773,770 7,969,860	1,989,400 20,490,820	1,246,270 19,504,100	943,070 23,369,370	217,677 5,394,028
Exchange: 1 US\$ = NT\$	10.30	10.30	10.30	15.65	24.78	24.78

\*\_/ Include provincial, county and township governments.

The costs for annual DDT spraying operations were calculated on the basis of the following expenditures: (a) cost of insecticides, (b) wages of spraymen, (c) salaries and per diem of the county and township supervisors and foremen during the period of spraying operations (about 60 days), (d) cost for health education, (e) transportation of insecticides and spraying equipment, (f) local equipment and parts, (g) training activities, etc. The total costs of operations and per capita analysis of major items of interest are given in Table 48.

**Table 48**  
*Expenditures for the DDT Spraying Operations, and Per Capita Analysis*  
 1952 - 1957 (Attack Phase)

Description	1952	1953	1954	1955	1956	1957
Population directly protected	156,217	1,526,306	5,167,664	5,640,325	6,728,465	1,470,156
Total costs (in NT\$)	367,155	4,118,705	16,660,413	17,686,126	19,335,425	4,729,500
Surface area sprayed per capita (m <sup>2</sup> )	42.4	40.7	44.0	45.0	42.0	40.9
DDT tech. grade per capita (gm)	83.5	85.4	87.3	89.3	83.3	80.7
Cost per capita						
- (in NT\$)	2.35	2.70	3.05	3.14	2.87	3.22
- (in US\$)	0.23	0.26	0.30	0.20	0.12	0.13

With regard to the program funding during the malaria surveillance period, July 1958 through December 1964, the following paragraphs summarize the expenditures and the sources of funds. According to agreements signed by the Government, ICA/CUSA and WHO, the cost of Full-Scale Malaria Surveillance was estimated at NT\$51,813,800 or US\$1,295,345 (at US\$1 = NT\$40).

WHO/Malaria Eradication Special Account provided 26.4% of the total cost. This fund was used to supplement the salaries of TAMRI's technical staff; to pay the wages of additional full-time blood collectors and microscopists, the travel expenses and per diem for county surveillance supervisors; and to purchase antimalaria drugs and microscopes.

The ICA/CUSA's share of the cost was 31.3%. This fund defrayed the wages of temporary personnel (vigilance organizer/inspectors), the travel expenses and per diem for the TAMRI field technicians, incentive bounties to groups of voluntary collaborators, training expenses, and the cost of DDT and BHC powders.

The Provincial Government's share of the cost was 35.3%. This fund was used to pay the salaries of the TAMRI personnel, the wages of workers recruited for

emergency local spraying, the travel expenses and per diem for local personnel (part-time blood collectors and microscopists), and cash prizes for voluntary case reporting, and to purchase antimalaria drugs.

County and township governments provided 6.8% of the cost. This fund was used to pay wages to spraymen/helpers for regular DDT spraying (until June 1960), and the travel expenses and per diem for part-time blood collectors (this item was matched in equal amounts by the Provincial Government).