

PROJECT EVALUATION SUMMARY (PES) -- PART I

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1. PROJECT TITLE Malaria Immunity and Vaccination	2. PROJECT NUMBER 931-0453	3. MISSION/AID/W OFFICE S&T/HEA
	4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>84-3</u> <u>1124/24</u>	

5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING		7. PERIOD COVERED BY EVALUATION	
A. First PRO-AG or Equivalent FY <u>75</u>	B. Final Obligation Expected FY <u>84/84</u>	C. Final Input Delivery FY <u>84/84</u>	A. Total \$ _____	B. U.S. \$ <u>23,258,000</u>	From (month/yr.) _____	To (month/yr.) _____
					Date of Evaluation Review <u>June 16, 1983</u>	

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
1. Develop a new AID Malaria Policy which establishes Agency guidelines and priority activity areas for assistance to Malaria Control Programs; takes cognizance of the continuing need for research and training in developing and applying newer vector control methodologies; continues support (through to the conclusion of field testing) of malaria vaccine research; and maximizes the use of the Primary Health Care system in applying malaria control interventions.	J. Erickson S&T/HEA	August 1984
2. Undertakes a state-of-the-art study at progress in the Malaria Vaccine Research Network.	J. Erickson S&T/HEA	August 1984

8. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS	10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT
<input type="checkbox"/> Project Paper <input type="checkbox"/> Financial Plan <input type="checkbox"/> Logical Framework <input type="checkbox"/> Project Agreement <input type="checkbox"/> Implementation Plan e.g., CPI Network <input type="checkbox"/> PIO/T <input type="checkbox"/> PIO/C <input type="checkbox"/> PIO/P <input type="checkbox"/> Other (Specify) _____ <input checked="" type="checkbox"/> Other (Specify) <u>AID Policy Paper</u>	A. <input type="checkbox"/> Continue Project Without Change B. <input type="checkbox"/> Change Project Design and/or <input type="checkbox"/> Change Implementation Plan C. <input type="checkbox"/> Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)	12. Mission/AID/W Office Director Approval
<u>James Erickson, S&T/HEA, Project Manager</u> See List of Workshop Participants at end of PES	Signature <u>[Signature]</u> Typed Name <u>James Erickson</u> Date <u>11/24/84</u>

Executive Summary

Malaria continues to be the leading deterrent to development of human and natural resources in vast areas of the world. It is the leading disease in terms of mortality and morbidity. As a direct result of the adverse impact of the disease, countries with serious malaria problems cannot become economically viable.

The existing policy of the Agency for International Development (AID) with respect to anti-malaria programs, ten years old and interpreted differently in each of AID's regional bureaus, requires revision if the Agency is to have a coherent world-wide approach to a problem of world-wide scope. Existing policy and its implementing support criteria are excessively rigid with respect to insistence on a purely economic rationale for AID support of malaria programs. These criteria pay inadequate attention to the need to identify and anticipate constraints to successful long-term malaria control; in addition they are silent on the relationship between malaria control and an increasingly important but widely variant mechanism for the delivery of health services, Primary Health Care (PHC).

The AID Malaria Strategy Workshop recommends a firm AID requirement that a country requesting assistance in controlling its malaria problem (1) be fully aware of the need for and (2) make a commitment of long-term support of the proposed program. With respect to the tactical approach to malaria control and the degree of control sought, the Workshop recommends maximum AID flexibility -- subject to an epidemiologically established plan of operation, a determination of the plan's technical feasibility and a careful assessment of administrative capacity and long-term financial affordability. Malaria's negative impact is such that properly supported requests for assistance warrant immediate consideration.

Economy of execution demands that all malaria programs make the maximum use of existing and potential PHC systems, consistent with the capacity of such systems to carry out their assigned roles. Conversely, in those countries where malaria is endemic and uncontrolled, a concentrated attention on primary health care without including an appropriate effort to reduce the toll of (if not the incidence of) malaria is irrational.

The degree adequacy of AID's malaria staff, in Washington and in the field, is of grave concern. It lacks both the numbers of personnel and the technical capacity to discharge its responsibilities. Especially in the field, AID staff has little or no malaria control training and operational experience. Specific suggestions for increased staffing and training are advanced.

While commodity supply will continue to be vital to early success of anti-malaria efforts, the Workshop report singles out research and training as the keys to long term success, and identifies specific areas of both research and training.

AID's malaria policy should take cognizance of the need for increased research; continued support (through to the conclusion of field testing) of malaria vaccine research, but also other forms of applied research, vital if the PHC system is to play its full role. Effectiveness of available anti-malaria drugs and insecticides is threatened by wide-spread and growing parasite and vector resistance; replacements are urgently needed.

While recognizing AID's long-established encouragement of collaboration among AID, international financial sources and other donor nations in support of malaria control activities, the Workshop sees little likelihood of increased multidonor support of malaria control without positive AID action. Such a course of action is suggested.

Workshop Conclusions

Major conclusions and recommendations emerged from the deliberations of the AID Malaria Strategy Workshop. Reports of sub-group Task Forces underlie these recommendations (which were debated within the entire Workshop, serving as a Committee of the Whole, to reach consensus). These Task Force reports appear in subsequent sections of this study.

A. AID Malaria Policy

1. Country Commitment.

AID's policy in responding to requests for assistance in dealing with the problems of malaria should be firm with respect to a requirement that the requesting country must recognize and commit itself to the long-term control of its malaria problem.

Without such a commitment, no amount of external support and no plan of operation, however well conceived, can assure long-term success in controlling malaria.

2. Tactical Flexibility.

AID's policy should be flexible with respect to the requesting country's tactical approach to malaria control and the degree of control to be attained and maintained.

A plan for malaria control must, however, be appraised on the basis of its technical feasibility and the country's administrative capacity and long-term financial responsibility. This appraisal must provide a reasonable anticipation that the assistance requested will lead to a

supportable and self-sustained malaria control activity -- whatever its scope -- which can be expected to continue beyond the termination of external assistance.

3. Priority.

Malaria's negative impact on economic and social development, its effect in shortening life expectancy, its toll in morbidity and the concentration of its effects on children and pregnant women give the disease a priority so high that properly supported requests should be given immediate consideration.

4. Use of PHC System.

Economy of execution demands that all malaria programs make the maximum use of existing (and potential) PHC systems, consistent with the capacity of such systems to carry out their assigned roles. However, the presence or absence of a PHC system should not determine whether or not support should be given to an anti-malaria program.

In some countries the PHC system, supported by a mandatory core of malaria expertise within the Ministry of Health, may be the only vehicle for malaria control.

5. Research.

AID's malaria policy should take cognizance of the need for increased research and field training.

Support of necessary research would include but would not be limited to continuation (through to the conclusion of field testing) of AID's long-standing support for basic research leading to a malaria vaccine (or vaccines). Other forms of research are needed: applied research and operational research to determine the effectiveness of innovative as well as conventional control measures and combinations of measures.

B. Criteria for AID Assistance to Anti-Malaria Programs

AID support of a country request for assistance to a malaria control effort is warranted when the country makes a long-term national commitment to a goal-oriented, well-planned, organizationally sound, technically and administratively feasible and costed plan of malaria control. This plan should take full account of the country's physical and human resources down to

the community level, take into account any recognized constraints to program success, and include proposals for overcoming or accommodating to such constraints.

The prerequisites for assistance include:

1. Request

A request from the host government for assistance in planning, implementing or evaluating malaria control efforts, whatever the level of control sought, must be supported by evidence of national will to carry out the proposed program and of the priority assigned to the problem of malaria.

2. Plan

The request should be keyed to a plan describing the malaria problem, the proposed course of action and the anticipated results. The plan should provide:

- a. The area in which the program will be conducted, population affected, and specific population groups and age groups targeted for attention.
- b. A baseline of epidemiological data which describes the existing problem in quantitative terms, to enable subsequent evaluation of accomplishment under the program.
- c. A description of plans for supervising, monitoring, evaluating and providing essential specialized support to workers at the periphery.
- d. A life-of-project projection of requirements in terms of manpower, money (local currency and foreign exchange) and equipment or supplies, defining in terms of quantity and quality the resources to be provided by the host government and those expected from external sources (AID, WHO or other agencies).
- e. Logistic and transportation requirements of the project. This element of the plan should include a description of equipment needed, plus methods of procurement, warehousing, distribution, stock control, reorder levels, etc., and as appropriate, provision for equipment and vehicle maintenance.

- f. Training requirements and a plan defining who requires training, where, when, and by whom.
- g. The relationship of the malaria control program to other activities of the Ministry of Public Health
- h. Methods of assuring coordination with and the full support of other elements in the Ministry of Health; with other health agencies in the country; and with other ministries or agencies (including those in the private sector) concerned with activities affecting malaria in the country.
- i. The social and economic impact of the proposed program.
- j. How the project will be continued beyond the period of external assistance.

3. Review

The request for assistance may be approved only on the basis of an AID review which is specifically designed not only to identify the program's technical, administrative and economic feasibility but also its affordability beyond the point of external support. The review should also examine the extent to which long-term goals of the plan take into account the known constraints to the attainment of such goals.

4. Assistance in Plan Preparation

The preparation of a malaria control plan may be beyond the immediate capacity of a number of countries. Assistance in plan preparation, including feasibility studies as embodied in small-scale projects to test the applicability of intervention techniques, warrants support by both international and bilateral sources of external assistance.

C. Role of PHC and Community Participation in Malaria Control

1. Use of Most Effective Vehicle.

While non-specific AID support to develop and strengthen country-wide PHC systems might in time be sufficient to assist in achieving malaria control, in endemic areas where malaria is a major threat to economic development or

quality of life, AID should provide selective support of malaria control using the most satisfactory available vehicle. In many countries, this will be the PHC system.

2. Time Constraints.

While all PHC systems require training, supervision, logistic support and a referral system, the need for quick response, (in particular the need for ready availability of chemotherapy and ability at the system's periphery to determine and administer an adequate dose of a curative drug) inherent in successful treatment of acute malaria warrants AID's particular attention to these factors in evaluating malaria control proposals within PHC systems.

3. An AID strategy of assisting malaria control through PHC should be complemented by:

a. Professional Core Group.

Support as needed to the development, through in-country training or training abroad, of a strong central core of experienced national malaria professionals, capable of the planning, designing, management and evaluation of appropriate interventions.

b. Diagnostic Tool Research.

Support of research to develop the simplified yet accurate diagnostic tools essential to enable quick and accurate diagnosis of malaria by individuals who possess very low levels of technical training.

c. Community Participation.

Support of operational research into techniques for eliciting increased and improved community participation in malaria control.

d. Complementary Projects

Support of malaria control in development projects and programs outside the health sector, especially those which could be adversely affected by malaria (e.g., education, settlement and rural development projects) or those which could themselves contribute to the malaria problem (e.g., irrigation, highway construction, land reclamation).

4. Conversion from Vertical System.

Types of malaria control activities proposed for transfer from a vertically administered system to the PHC system should be very carefully selected in the light of the geographical coverage of the PHC system and the adequacy of the preparation of the PHC staff to assume the new burden, and the potential weakening of an existing malaria program.

D. Multidonor Assistance

AID Health and Development policies already advocate the encouragement of collaboration between AID and other donors. The following added specificity is suggested:

1. Donor Collaboration and Coordination.

AID should continue its ongoing efforts in collaborating/coordinating with other donors of health assistance at the country, regional and international levels.

2. Professional Staff Coordination.

Regular contact for research and country program coordination between AID professional staff and other financial and technical agencies should be maintained.

3. Acceleration of Multi-donor Support.

For purposes of accelerating the rate of international financial support for malaria, four levels of action are suggested:

a. AID country health representatives should continue to encourage governments to identify needs for external cooperation to formulate these needs within project proposals which merit the approval of the national planning authority, and to seek multisource funding for malaria. AID should support (through the use of short-term consultants) the efforts of WHO field representatives to help in project formulation and justification.

b. In view of regional differences in the approaches for control of the malaria problem, AID should maintain close consultation with WHO Headquarters and Regional

Offices with respect to status of programs, requirements, and project formulation.

- c. AID should continue to support WHO Headquarters in Geneva in its periodic consultations among donor groups for exchange of views on malaria program status and anticipated requirements for external cooperation.

AID should also explore comparable mechanisms with other multilateral and bilateral funding institutions.

- d. AID should cooperate with WHO and other international development cooperation organizations, at both central and regional levels, to identify both potential donors and appropriate recipients; should provide such information to countries seeking external assistance; and should cooperate, as appropriate, in the formulation of proposals for multi-source external financial and technical support.

E. Research

The greatest successes in anti-malaria programs have been achieved through anopheline mosquito control to prevent spread of malaria. Research on these vectors of malaria must be intensified in order to improve control methodology. Such research should include study of the vectors themselves, improved insecticides and insecticidal application equipment, biological control and integrated or comprehensive vector management.

1. Vaccine Research.

AID should continue to support malaria vaccine research at a level which will permit completion of this important project.

2. Other Centrally Funded Research.

Because of current operational difficulties, especially drug resistance in malaria parasites and insecticide resistance in mosquito vectors, new research activities should be initiated in the following areas:

- a. Simplified malaria diagnostic and survey methods.

- b. Identification, clinical evaluation and field testing of new anti-malarial drugs, through to registration and approval for human use.
- c. Identification and testing of new insecticide compounds and biological agents, as alternatives for insecticides to which resistance has developed or which may in some situations be unsuitable because of vector behavior.
- d. Development and testing of improved insecticide formulations.
- e. Development of test methodology for use in specifications necessary to ensure delivery to the field of high quality insecticides, application equipment and packaging.
- f. Development of a variety of alternative, possibly novel, malaria control measures.
- g. Further investigation of epidemiological determinants of the malaria problem which affect human ecology and therefore the severity of the malaria problem or the feasibility of its control.

3. Operational Research.

As trained professionals emerge, AID should support operational research at the program level, essential to ensure effective malaria control programs. Provision should be made in country programs for an operational research component, to develop the area-tailored vector and parasite control programs upon which effective anti-malaria measures must be based. Such a technical research component would determine the optimum curative drug, the proper dosage and the high-risk populations. It would also monitor drug sensitivity in association with PHC activities.

4. Review of Proposed Research.

AID should maintain an effective system of review for malaria research proposals, especially at the central and regional levels, to assure against duplication of effort. The review process should include a cross-check of planned research with WHO's Special Programme for Training and Research in Tropical Diseases (TDR), and with bilateral research organizations. Maintenance of close contact

with agricultural operational and research interests in insecticides may avoid later problems.

5. Research Funding

The intrinsic nature of present malaria control programs is such that research in support of effective, operational programs is an absolute necessity for long-term success. The investment in control-related research should be commensurate with the investment in the total program.

F. Training.

1. National and International Training.

A material expansion of AID sponsorship of training related to anti-malaria programs is essential. Such training should apply to all levels of malaria program personnel with host countries. Strengthening of national training capability is a proper and indeed a priority matter for AID support.

It may also prove feasible for AID to support (as it is already doing in Asia) the development and functioning of collaborating institutions at the regional or inter-regional level to provide a better utilization of training resources.

2. Core Skills Training.

Key national personnel, especially in scientific, operational, public health and administrative positions, should be provided with the necessary skills required to carry out the functions of their positions. Such training may be provided in their own countries, in the U.S., or in a third country, as is deemed appropriate. Degree-level training should be encouraged and funded in selected cases.

3. Training Materials.

AID should support the development and production of training materials at all levels.

4. Training for Research.

A more specialized need is the strengthening of the capabilities of research workers in the developing countries,

if technology transfer is to be most effective. Training of this nature should be coordinated with WHO's TDR, but AID can and should play a role as well, particularly in longer-term training of such personnel in U.S. educational institutions.

5. Training for AID Personnel.

See Section I-4 below.

G. Epidemiologic Assessment, Diagnosis, Malaria Drug and Insecticide Use

1. Program Design.

Malaria control programs must be designed and evaluated using adequate epidemiologic data on malaria, its transmission and its health consequences in the area.

2. Local Drug and Insecticide Manufacture.

While local drug and insecticide manufacture may in some instances be technically feasible and consistent with AID policy to encourage and support local formulation of anti-malarial chemicals, careful quality control and uniform packaging of these products are mandatory to ensure both efficacy and safety to humans.

3. Control Over Antimalarial Drugs and Insecticides.

In the design and operation of malaria programs, the quality control, supply and use of current and new anti-malarial drugs and insecticides should be regulated in coordination among national governments, AID, other sources of assistance and international organizations and industry, to maintain the efficacy of available tools as long as possible and to ensure product safety to humans.

H. Vector Control

1. Role of Vector Control

Many malaria control programs must continue to be based entirely or in great part on vector control: chemical, environmental or biological, or a combination of these methods.

2. Entomological Surveys

Entomological surveys to determine the vector species or strain, breeding sites and breeding habits are absolutely essential to successful vector control.

3. Insecticide Selection

Determination of the most cost effective insecticide can only be made by field-test comparison of usage under local conditions.

I. AID Staffing

AID must reconsider its overseas staffing priorities, which currently stress managerial skills rather than malaria technical skills. Only with the expansion of training programs which cover both technical and management skills, for national but also for AID staff, will malaria programs be adequately designed and implemented.

1. Mission Staffing.

AID should provide a malaria-trained U.S. advisor to each AID-supported malaria program.

2. Regional Staffing.

AID should establish for each region a particularly well-qualified U.S. malaria specialist to serve as coordinator and technical backstop to country-level malaria advisors and as a consultant in the formulation of initial plans to establish malaria programs.

3. Washington Staffing.

AID should strengthen the malaria control expertise in its headquarters offices, both in regional offices and in the Office of Health, to provide expeditious review of and support to country programs.

AID's current patterns of organization in Washington and assignment of responsibility deprive malaria programs of technically qualified review of project proposals, and multiply contact points between AID and Centers for Disease Control (CDC) unnecessarily, to the detriment of effective relations.

- a. The responsibility for the design review, technical coordination and evaluation of malaria (and other vector-borne diseases) control and research programs should be centralized and assigned to technically qualified and trained personnel in the Office of Health, Science and Technology Bureau.
- b. The Regional Bureau should continue to be responsible for project management. Individuals with direct responsibility for the malaria programs in each region should be trained in malaria control.

4. Training for AID Personnel.

Given the shortage of trained and experienced malaria control personnel in the U.S., AID should cooperate with one or more U.S. educational institutions to establish suitable training programs to address this real and growing problem. Only with the expansion of training programs for AID staff as well as for national staffs will malaria programs be adequately designed and implemented.

J. AID Environmental Guidelines

1. AID's basic policy of concern for the environmental impact of some malaria control activities is sound and is in no need of change at this time. However, until new and yet unproven alternative methods of vector control are developed and tested, the use of pesticides in many and possibly most vector control programs must be considered a sine qua non.
2. Residual pesticide interior treatment of dwellings has little or no impact on the environment. In terms of its absolute effectiveness (in terms of results achieved) and its cost-effectiveness, residual pesticide treatment remains the most efficient method of malaria vector control. AID should not discontinue support for vector control through the use of residual pesticides; in fact, the rising costs of presently available insecticides and the progressive spread of anopheline resistance to the present array of such insecticides may require that AID support research leading to the development of new, effective, equally safe and hopefully cheaper alternative insecticides.
3. AID should also encourage and finance research leading to the development of alternative methods of vector control

that would be as effective as residual insecticides, and
as environmentally sound.

AGENCY FOR INTERNATIONAL DEVELOPMENT

MALARIA STRATEGY WORKSHOP
7-10 June 1983, Columbia, Maryland

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AGENCY FOR INTERNATIONAL
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MALARIA STRATEGY WORKSHOP
7-10 JUNE 1983, Columbia, Maryland

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