

CAPITAL PROJECT PAPER (PROP)

I. PROJECT IDENTIFICATION

|   |  |  |
|---|--|--|
| PROJECT TITLE<br>Development and Evaluation of Integrated Delivery Systems (DEIDS) (Thailand sub-project)           |  | APPENDIX ATTACHED<br><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO   |
| RECIPIENT (specify)<br>COUNTRY _____<br>REGIONAL _____ <input checked="" type="checkbox"/> INTERREGIONAL <u>MAP</u> |  | 2. PROJECT NO. (M.O. 1095.2)<br>931-11-580-977   |
| 4. LIFE OF PROJECT<br>BEGINS FY <u>71</u><br>ENDS FY <u>81</u>  |  | 5. SUBMISSION<br><input type="checkbox"/> ORIGINAL _____ DATE _____<br><input checked="" type="checkbox"/> REV. NO. <u>6</u> _____ DATE <u>71</u><br>CONTR./PASA NO. <u>CSD-3423</u> |

II. FUNDING (\$000) AND MAN MONTHS (MM) REQUIREMENTS

| A. FUNDING BY FISCAL YEAR | B. TOTAL \$ | C. PERSONNEL |        | D. PARTICIPANTS |        | E. COMMODITIES \$ | F. OTHER COSTS \$ | G. PASA/CONTR. |        | H. LOCAL EXCHANGE CURRENCY RATE: \$ US _____ (U.S. OWNED) |                  |       |
|---------------------------|-------------|--------------|--------|-----------------|--------|-------------------|-------------------|----------------|--------|---|------------------|-------|
|                           |             | (1) \$       | (2) MM | (1) \$          | (2) MM |                   |                   | (1) \$         | (2) MM | (1) U.S. GRANT LOAN                                       | (2) COOP COUNTRY |       |
|                           |             |              |        |                 |        |                   |                   |                |        | (A) JOINT   | (B) BUDGET       |       |
| RIOR THRU ACTUAL FY       |             |              |        |                 |        |                   |                   |                |        |   |                  |       |
| PRN Y 74                  | 1,117       |              |        |                 |        |                   |                   | 1,117          | 1984   |   |                  | 398   |
| BUDGET 75                 | -0-         |              |        |                 |        |                   |                   |                |        |   |                  | 616   |
| BUDGET 76 1 FY            | 500         |              |        |                 |        |                   |                   | 500            | 700    |   |                  | 771   |
| BUDGET 77 2 FY            | 500         |              |        |                 |        |                   |                   | 500            | 664    |   |                  | 264   |
| BUDGET 78 3 FY            | 500         |              |        |                 |        |                   |                   | 500            | 664    |   |                  | 1,000 |
| LL UBO. FY                |             |              |        |                 |        |                   |                   |                |        |   |                  |       |
| RAND TOTAL                | 2,617       |              |        |                 |        |                   |                   | 2,617          | 4012   |   |                  | 3,749 |

| OTHER DONOR CONTRIBUTIONS | (A) NAME OF DONOR | (B) KIND OF GOODS/SERVICES | (C) AMOUNT |
|---------------------------|-------------------|----------------------------|------------|
|                           |                   |                            |            |

III. ORIGINATING OFFICE CLEARANCE

|   |                                       |                 |
|---|---------------------------------------|-----------------|
| DRAFTER: <u>N/whf: Lloyd Florio</u><br>/H, R. Newman/Lloyd Florio, M.D. | TITLE<br>Health Advisor/Senior H. Ad. | DATE<br>6/17/74 |
| CLEARANCE OFFICER<br>/H, Lee Howard, M.D. <u>L. Howard</u>              | TITLE<br>Director, Of. of Health      | DATE            |

IV. PROJECT AUTHORIZATION

|                        |
|------------------------|
| CONDITIONS OF APPROVAL |
|------------------------|

The Deputy Administrator's approval is limited only to this sub-project. Additional sub-projects under this DEIDS project will require the approval of the Deputy Administrator.

| CLEARANCES  |                                 |         |  |  |         |
|---|---------------------------------|---------|--|--|---------|
| BUR/OFF.  | SIGNATURE                       | DATE    | BUR/OFF.                               | SIGNATURE  | DATE    |
| 1/TA  | <u>Curtis Ferrar</u>            | 6-19-74 | AA/SA                                  | Robert H. Nooter (draft)                               |         |
| 2/DPRE  | Mark Ward/Frank Kimball (draft) |         | AA/ASIA                                | Alfred D. White (draft)                                |         |
| 3/PPC   | Philip Birnbaum (draft)         |         | GC                                     | GC: A/Gardiner, Jr. (draft)<br>A. R. Richstein (draft) |         |
| 4/PHA   | Jarold A. Kieffer (draft)       |         |  |  |         |
| APPROVAL AAs OR OFFICE DIRECTORS                    |                                 |         | 4. APPROVAL AAs (See M.O. 1023.1 VI C) |  |         |
| SIGNATURE   |                                 | DATE    | SIGNATURE                              |  | DATE    |
|   |                                 |         | <u>Deputy Administrator</u>            |  | 6/19/74 |
| ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT |                                 |         |  |  |         |

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## I. Introduction

The original PROP was approved by the Administrator in 1971 with the provision that Agency commitment for the long-term would be re-examined when the first country proposal was submitted for the Development of Evaluation of Integrated Delivery Systems (DEIDS). This amendment to the PROP reviews the present situation, a specific plan for the DEIDS sub-project for Thailand, and the steps necessary to proceed on all the sub-projects.

The DEIDS project offers a new approach to the development of improved health, population, and nutrition programs in the less developed world. It aims to develop a system through which at least minimal services can be delivered to the majority of populations in rural areas within the means of the country to support. Lack of an adequate delivery system is a major impediment to the success of population planning programs (which currently reach only a minority of eligible populations in developing countries).

Early attempts to establish high-coverage, low-cost health delivery projects in populations of limited size have been initiated in India (Narangwal), Ghana (Danfa), Thailand

(Seraphi), and other locations. These early experimental efforts were concerned with relatively small population groups, and mainly addressed questions regarding the effectiveness of the mix of health services (including family planning and nutrition). From these results, others have designed larger models to test different health service combinations. However, the common approach has been to deliver through the public sector a broad array of curative and preventive services at levels either too expensive for rational application or too dependent on external resources. Satisfactory coverage in rural areas has been achieved very rarely.

The original PROF called for long-term (up to eight years) pilot, experimental work to be carried out in four representative LDC locations. Such an experiment has never been tried before with a large population base (500,000 or more) in such a manner that general conclusions on accessibility, acceptability, and affordability can be drawn. In order to carry out a project of this nature and magnitude, new methods of project management were applied. In view of the decreasing professional manpower in A.I.D. a contractor was selected to serve as a management intermediary. The American Public Health Association provides the intermediate management responsibility and marshalls the necessary professional resources to:

(1) undertake selection of countries for the project (Phase I), (2) on-site project development and planning (Phase II), and (3) guide and monitor implementation (Phase III).

## II. Progress to Date

The A.I.D. Missions were informed by airgram in July 1972 of the project proposal, the problems to be addressed, and A.I.D.'s potential input. Fifteen Missions responded that their governmental counterparts had expressed an interest, and required a visit by APHA in the country selection process.

Fifteen countries in Asia, Africa, and Latin America were visited between August 1972 and November 1973. As a result of these visits, Ecuador, Thailand, Pakistan, and Nigeria were selected by TAB as potential DEIDS project areas, subject to successful development of a project. Panama, because of a health delivery system already being put into place, was selected for consideration as an area of special study for the installation of an effective evaluation system to provide the basic information to accurately and quickly assess program effectiveness and determine required modifications.

Concurrently with Phase I activities described above, the APHA completed a literature survey, initiated selected studies of various ongoing projects in this field, and visited a few project activities. As it turns out, the principal value of this literature search has been to indicate

that there is no literature on any successful demonstrations of a wide-coverage low-cost integrated system.

Phase II activities were initiated in Thailand and Ecuador in August 1973 and in Pakistan in November 1973. Nigerian Phase II studies are planned to be initiated by mid-1974. APHA has submitted draft proposals for project implementation in Thailand and Ecuador. The Thailand proposal has been approved by TAB and has been extensively reviewed by the other Bureaus of the Agency. The Ecuador proposal is now being reviewed by TAB.

### III. Lessons Learned to Date

Development of an adequate delivery system must take into account the stage of development of the existing health system and the existing state of planning by the government, regardless of its efficiency. Until more efficient systems are demonstrated, developing countries will continue in the traditional low-efficiency patterns which make difficult access to the population majority.

Both the Thailand and Ecuador Governments indicate that a national integrated delivery system must include simple subsidiary health facilities for curative and preventive care in areas beyond reasonable access to the few centrally located hospital facilities.

Thailand is already committed to a nation-wide program of health center construction. In planning the DEIDS project, these centers have been considered as part of the existing delivery system since 45% (252) of these centers have already been built. Though not essential to DEIDS they are supportive.

In Ecuador, the DEIDS program could lead to a less expensive infrastructure. Planned investments in health center construction, as well as expenses of maintaining and operations such centers, could be significantly reduced.

Comparing the training and utilization of the peripheral worker, unpaid volunteers and indigenous workers will provide the linkage to the consumer at the end of the Thailand system. In Ecuador, the Ministry of Health proposes to use auxiliary workers paid by the Government for these outreach services. From these varying methods, the DEIDS program will gather experience for application in other developing countries.

After careful consideration within A.I.D., it was decided that the planning/monitoring/evaluation system for the project should be expanded, beyond the original goal of measuring how many people are reached, to include planning and programming questions (e.g., which elements of the program are accomplishing their objective of altering health behavior, and what program changes are indicated), and longer-run

questions of cost-effectiveness and replicability. The initial steps will be to obtain expert advice from consultants, Indefinite Quantity Contractors (IQC), and subcontractors, who will jointly work with APHA as a Task Force on the evaluation guidelines (including costs) for the DEIDS project as a whole and for the Thailand sub-project in particular. APHA will utilize its evaluation design team to participate, along with the Thailand subcontractor (University of Hawaii) in design of the Thailand evaluation system. It is anticipated that the recently established evaluation unit in the Thai Bureau of the Budget will also participate.

#### IV. Thailand Project Design

The basic plan is set forth in a large report ("Yellow Book") by APHA to the Agency's Task Force on Low Cost Health Delivery Systems on March 15, 1974. The report is entitled "Proposal for Development and Evaluation of an Integrated Delivery System in Thailand." On the whole that report remains valid with certain minor modifications introduced herein (see logical framework attached).

##### A. Purposes:

The purposes are to develop and demonstrate a low-cost multi-purpose delivery system in Lampang Province which, as a minimum, provides family planning services integrated for consumer acceptance with MCH and other basic health services and nutrition, used by two-thirds of the women of reproductive age and children under six at a cost which does not exceed resources available to the Province.

to thoroughly test the system for replicability, and to gain useful experience which can be applied to the establishment of low-cost integrated systems elsewhere in Thailand and in other countries. Lampang Province is located in Northern Thailand where the population is estimated to be 661,800 in 1974. Work will be initiated in Hang Chat District of that province and will gradually spread to all eleven districts by 1978. Coverage of the target group should increase from 48,300 or 20% in 1974 to 198,600 or 65% in 1981. The purpose of the project will be achieved when these targets have been accomplished and the Royal Thai Government (RTG) decides to introduce the system to other provinces.

### B. Outputs

The principal outputs of the project will be (1) an operational system in Lampang Province which delivers minimal family planning, child nutrition and basic health services to women of reproductive age and children under six at a cost within Thai capability; (2) dissemination of relevant experience in Thailand and elsewhere; and (3) training of public and private leaders from all Thailand provinces in the replicable elements of the system.

There is no intention to design within the parameters of the DEIDS project a national program for either family planning or nutrition, but only to produce a delivery system. Family planning commodities will be provided through the regular RTG program assisted by USOM. However, outreach workers trained within the DEIDS project will deliver contraceptive devices and nutritional information. The contractor, TA/H, and TA/N will work with the RTG to the extent they want our assistance in the development of such information. The distribution of food supplements, if undertaken, is the responsibility of the Thai Government.

Costs of service delivery will be a strong factor in determining the extent of the services that can be made available. The RTG may decide to provide services above and beyond minimum DEIDS requirements. One purpose of the demonstration is to establish parameters as a basis for RTG decisions of this sort.

### C. Inputs

#### RTG:

1. Continue regular and planned health and family planning programs in the Province, including construction and

equipment programs, payment of wages, salaries and travel expenses to all non-volunteer workers, furnish medical and family planning supplies, etc.

2. Recruit and pay salaries of a new component of intermediate technology health worker (MEDEX) increasing from 20 in 1974 to 85 in 1977.

3. Provide all facilities for training programs and office space for the four project divisions described under D. below.

4. Furnish qualified personnel for the four special groups who will be paid by the US during the project period.

5. Furnish high ranking officials to participate in the Policy Committee and the Planning and Evaluation Committee. (Described on pages A. 1-3 of the APHA "Yellow Book".)

6. Furnish the Project Director, Deputy Project Director and Field Director. (Their functions are described on page A. 3 of the APHA proposal.)

7. Conduct and participate in the annual Chiangmai and Bangkok conferences and the intra-regional seminars described on pages 37-38 of the APHA proposal.

The projected health budget for Lampang is located on page 27 herein.

U.S. Government (through a contractor)

1. U.S. Personnel

- a. U.S. Counterpart - resident in Thailand
- b. Training Officer - resident in Thailand
- c. Project Manager (half-time) at the subcontractor institution.
- d. Executive Secretary at the subcontractor institution.
- e. Consultants - Up to eight consultants (about one-month each) per year to provide varying inputs as required by the project.
- f. Travel and administrative costs such as housing, per diem, etc.

2. Thai Personnel (to be paid in Baht purchased with U.S. dollars):

- a. An administrative assistant and a secretary for the U.S. counterpart.
- b. Administrative Services Division, including a Chief of Division, secretary, three drivers and two janitors.
- c. Manpower Development Division, including a Chief of Division, administrative assistant, four technical instructors and a secretary.
- d. Health Services Division, including a Chief of Division and a secretary
- e. Information and Evaluation Division
  - (1) Community Survey and Vital Statistics Study, including one statistician, three informatio

supervisors, a computer programmer, two statistician assistants, twelve data collectors and eight coders.

- (2) Administrative Analysis, including an administrator 1MM, a social anthropologist 3MM, and a secretary
- (3) Consultant services will be purchased in Thailand to the extent possible to allow broad local institutional involvement in project activity.

In addition to the above, the U.S. will provide honoraria and travel for Thai consultants, training stipends for those workers being trained, and normal Thai honorarium for instructors required in the training programs. Normal administrative costs of U.S. employed personnel, such as per diem, travel, and other similar costs, will be part of the U.S. contribution.

In order that the U.S. contractor and subcontractor have adequate knowledge of the environment in which they will operate, they may hire either U.S. or Thai consultants to provide them with studies on governmental and societal relationships in Lampang, the governmental personnel system, the present role of the private sector in delivering medical and health services and other matters which may bear on the success or failure of the DEIDS project.

#### D. Course of Action

The course of action will include:

1. Twelve-month training programs for a new component of 85 intermediate technology health workers (MEDEX) to be assigned to existing and planned Rural Medical and Health Centers.
2. Short-term training and integration into the health system of 6,540 auxiliary health workers and communicators, mainly unpaid, identified as traditional midwives, monks, village headmen, injectionists, and tambol doctors. Attempts will also be made to obtain cooperation from druggists.

In the late stages of planning this project AID was informed of World Bank interest in Thailand's health program and the probability that WHO would conduct a health sector analysis in connection with the World Bank interest. It is expected that there will be considerable collaboration between this effort and the DEIDS project in information gathering and dissemination and in endeavors to dovetail future planning.

3. Referral of difficult curative cases to curative elements of the provincial health system.

4. Continuous data collection, analysis, evaluation and adjustments in the system, including training programs. Primary attention will be devoted to service accessibility, costs and replication of the system.

5. Special efforts to disseminate information and experience and to encourage initiation of low-cost multipurpose health delivery systems in other provinces of Thailand and neighboring countries. These include the conferences and intra-regional seminars described on pages 37-38 of the APHA proposal.

The health delivery system in Lampang Province will be developed by the four "operational" groups described under US Inputs above and further described below. These groups are necessary only in the original project because of its experimental nature and will not be replicated as the concept spreads throughout the country. Neither will the extensive evaluation be replicated, though a few simple elements will be distilled out for the evaluation of replications.

The Personnel Development Division will be responsible for administering seven personnel training programs which will strengthen the health delivery systems in Hang Chat District and Lampang Province:

1. Training of Trainers
2. Cross Training for Administrators, Supervisors and Service Personnel

3. Volunteer Training for Health Post Workers and Communicators
4. Traditional Midwife Training
5. On-the-job Training (continuous)
6. Intern Training
7. MEDEX

The primary requirement is to provide services to rural Thailand. Urban Thailand is fairly well serviced with a doctor/population ratio in Bangkok, for example, of 1:1,000 while the ratio in Lampang is 1:25,430. Provincial hospitals exist. However, the public hospital bed/population ratio in Bangkok is 1:258 and only 1:2,083 in Lampang.

In order to facilitate the delivery of health services to rural Thailand the Government has embarked on an ambitious program of building district (amphoe) and township (tambol) health centers. To date 45% or 252 district health centers have been completed in Thailand. Only three of eleven have so far been completed in Lampang. Of those so far built nationwide only one-third have personnel authorized to administer medical care. In rural areas there are very few private hospitals and clinics. Private facilities in Lampang total four doctors and 35 beds, though other clinics exist. On the other hand, Lampang has ten "first class" drug stores, 47 "second class" drugstores and 79 traditional drugstores

The result is that most rural people, if they get medical treatment at all, get it by self-treatment from medicines procured at drugstores. For the northern provinces of Thailand it is estimated that 55% of health expenditures are for such self-treatment. The drugstores for the most part, however, operate without licensed pharmacists and do not require prescriptions, thus providing questionable services at a charge they consider clients able to afford.

Attempts will be made in the DEIDS project to obtain cooperation from the drugstores. It is possible that the RTG can devise incentives and penalties to encourage such cooperation.

Despite the "system" in place, therefore, it presently is not managed responsively to the needs of the population majority in rural areas. Although provision of medical care is not the primary intent of DEIDS, medical personnel and facilities provide an essential link in provision and supervision of family planning and nutrition services to the majority. DEIDS seeks to provide this linkage through an innovative health manpower development technique provisionally called MEDEX until the Thais supply their own title. The training program will provide 85 intermediate non-physician technologists over a period of four years (12 month courses) to be professionally competent in curative and preventive medicine, including family planning, maternal, and child health service.

This system, and others similar to it, are being accepted in many areas of the U.S. Developers of MEDEX in the United States also developed a MEDEX system for the US Trust Territories which has problems similar to those in most LDCs. Thai MEDEX will be trained in a program based on the results of specific task analysis already initiated by the RTG and to be completed early in Phase III of the project. Task analysis for this and other manpower problems will be a continuing process throughout the life of the project. Evaluation will determine if this training proves useful in filling the need for authorized medical personnel at the Health Center level of the rural delivery system.

With establishment of this linkage, there remains the basic problem of reaching the rural majority. Task analysis will be used to improve training programs for several other categories of health workers. Specifically, training will be given indigenous midwives, monks, tambol doctors, and rural health workers, who will provide the basic network of health population and child nutrition information and limited services. These grassroot providers will concentrate on preventive services such as family planning services and information, infant and child care and feeding, personal hygiene, and sanitation. Some will perform rudimentary curative services and refer the seriously ill to curative services available at health centers and the province hospital. Training programs applicable to various health provider/promoters are now being developed. Task analysis will be used to evaluate the training programs.

While the Thais start with definite ideas as to the numbers of people required, a system of cost analysis will be instituted to study costs of training, personnel, and other service/promotion activities to assure replicability of the eventual system developed in Lampang Province.

Following is a chart of initial personnel goals for the health delivery system of Lampang Province. Annual increments of increase have not been completely determined and these estimates, made by the RTG, may be optimistic.

EIGHT-YEAR GOAL FOR HEALTH PERSONNEL\* - LAMPANG PROVINCE

| Category                    | Medical Care Sector (Hospital) |                     | Public Health Sector (Rural) |                     | Total    |                     | Overall required |
|-----------------------------|--------------------------------|---------------------|------------------------------|---------------------|----------|---------------------|------------------|
|                             | Existing                       | Additional required | Existing                     | Additional required | Existing | Additional required |                  |
| 1. Physician*               | 22                             | 5                   | 3                            | 9                   | 25       | 14                  | 39               |
| 2. Nurse                    | 52                             | 10                  | 7                            | 18                  | 59       | 28                  | 87               |
| 3. Sanitarian               | 0                              | 0                   | 3                            | 10                  | 3        | 10                  | 13               |
| 4. District Health Of.      | 0                              | 0                   | 11                           | 0                   | 11       | 0                   | 11               |
| 5. Health Worker            | 0                              | 0                   | 29                           | 73                  | 29       | 73                  | 102              |
| 6. Dentist                  | 2                              | 2                   | 0                            | 1                   | 2        | 3                   | 5                |
| 7. Pharmacist               | 2                              | 2                   | 0                            | 0                   | 2        | 2                   | 4                |
| 8. Practical Nurse          | 23                             | 50                  | 1                            | 90                  | 24       | 140                 | 164              |
| 9. Nurse Aide               | 138                            | 100                 | 0                            | 0                   | 138      | 100                 | 238              |
| 10. Midwife                 | 0                              | 0                   | 61                           | 51                  | 61       | 51                  | 112              |
| 11. Dental Auxil.           | 1                              | 4                   | 0                            | 11                  | 1        | 15                  | 16               |
| 12. Medex**                 | 0                              | 5                   | 0                            | 80                  | 0        | 85                  | 85               |
| 13. Health Post Volunteers  | 0                              | 0                   | 0                            | 540                 | 0        | 540                 | 540              |
| 14. Communicator Volunteers | 0                              | 0                   | 0                            | 5,400               | 0        | 5,400               | 5,400            |
| 15. Traditional Midwife     | unknown                        | unknown             | unknown                      | 600                 | unknown  | 600                 | 600              |

\*Intern training in Lampang Hospital is a new source for recruiting physicians.

\*\*To be recruited from health workers, practical nurses, nurse aides, and midwives. This will provide upward career mobility for these categories of workers.

The Medical Health Services Division, aided by short-term consultants, will concentrate on development of services at various levels. Such development will be guided by a providers committee (Field Coordinator Committee) with health, education, agriculture, and religious representation at District level, and a consumer group (Consumer Adjunct Committee) representing community leaders.

There will be no initially fixed predetermined definition of skills or training because to do so would vitiate the experimental and developmental nature of the project. Unless flexibility is possible during Phase III activities, an acceptable low-cost system will be difficult to develop. Since the design of a high coverage delivery system is unproven in Thailand, we must start with a reasonable hypothesis and let the program evolve from there through constant evaluation of original service structure, utilization and cost. The following principles, however, have been generally agreed upon as a starting point.

The health personnel outside the hospital will have three primary functions: (1) as the main force in preventive services including family planning and nutrition, (2) to provide simple curative care, and (3) to serve as the referral conduit through which the rural citizen will be reached by the more sophisticated services, if required. The kinds of services offered at different levels in the system will vary

in sophistication. At the farthest outreach point, the minimal services will be delivery of contraceptive services, the introduction of appropriate nutrition information, and information about other preventive practices, plus some minimal and simple curative services. The primary role, in curative medicine, will be to refer sick patients to the proper treatment area in the system.

The Information - Evaluation Division will be responsible for surveys, data gathering and evaluation. The basic evaluation requirements are the determination of regularity, quantity and cost of accessibility to couples of reproductive age, and children under six years for purposes of family planning, child nutrition, and MCH services. However, there are important linkages between the outreach system and the regular, ongoing curative and preventive components of the basic health system. Adjustments in one will result in changed workload, costs and personnel requirements of the other. The evaluation system to be developed should take these linkages into account. At the outset of the Project, the Task Force, mentioned in III above, will make the initial recommendations on data and evaluation requirements. Experience will dictate needs for additional data and what data presently being collected does not serve the intended purposes. List B below is only illustrative of the kinds of data that might be collected.

List A. Schematic Relationship between Information Sources and Program Areas

| Component<br>Source             | Program         |               |           |                |     |              |
|---------------------------------|-----------------|---------------|-----------|----------------|-----|--------------|
|                                 | Illness<br>Care | Pers.<br>Pre. | Maternity | Family<br>Plan | CDC | Env.<br>San. |
| 1. Vital Statistics             |                 |               |           |                |     |              |
| 2. Community Surveys            |                 |               |           |                |     |              |
| 3. Nutrition Surveys            |                 |               |           |                |     |              |
| 4. Clinical Records             |                 |               |           |                |     |              |
| 5. Service Records<br>Abstracts |                 |               |           |                |     |              |
| 6. Task Analysis                |                 |               |           |                |     |              |
| 7. Cost Analysis                |                 |               |           |                |     |              |
| 8. Admin. Analysis              |                 |               |           |                |     |              |

List B. Illustrative Summary of Information Items in DEIDS Information System

1. Care of Illness

No. Patients by Complaint  
 No. Patients Receiving Drugs, Injections, Other Treatment  
 Distance of Patient Travel  
 Patient Visits Per Episode of Illness  
 Type Practitioner Consulted and Reason  
 To Whom Referred  
 Reason for no Consultation  
 Duration and Severity of Illness  
 Deaths  
 Cost of Consultation and Drugs  
 Cost of Travel  
 Other Cost

2. Personal Preventive Care

Routine Well Care Contacts  
 Immunization by Type  
 Nutrition Contacts  
 Nutritional Status  
 Health Talks Given

List B. (Continued)

3. Maternity Care

Prenatal Contacts  
Deliveries  
Postnatal Contacts  
Births  
Source of Prenatal Care Last Time and Reason  
Place of Last Delivery and Reason  
Source of Postnatal Care Last Time and Reason

4. Family Planning

Family Planning Talks Given  
Motivation Contacts  
Service Contacts  
Follow-up Contacts  
No. Acceptors by Type  
No. Currently Practicing by Type  
Previous Use of Contraception by Type  
Willingness to Use Family Planning  
Reason for Unwillingness  
Preferred Source of Family Planning  
No. Living Children  
Age of Youngest Child  
Child Mortality Experience

5. Communicable Diseases Control

Malaria Visits, Blood Smears, Cases Treated  
TB Visits, Cases Treated  
Other Contacts

6. Environmental Sanitation

Source of Drinking Water  
Waste Disposal Means  
Service Received Regarding Water, Waste

7. Administration

Personnel Background, Training, Experience  
Personnel Knowledge of Job and Organization  
Personnel Satisfaction  
Supervisory Visits  
Vital Statistics Contacts  
Training Given by Type and Duration

List B. (Continued)

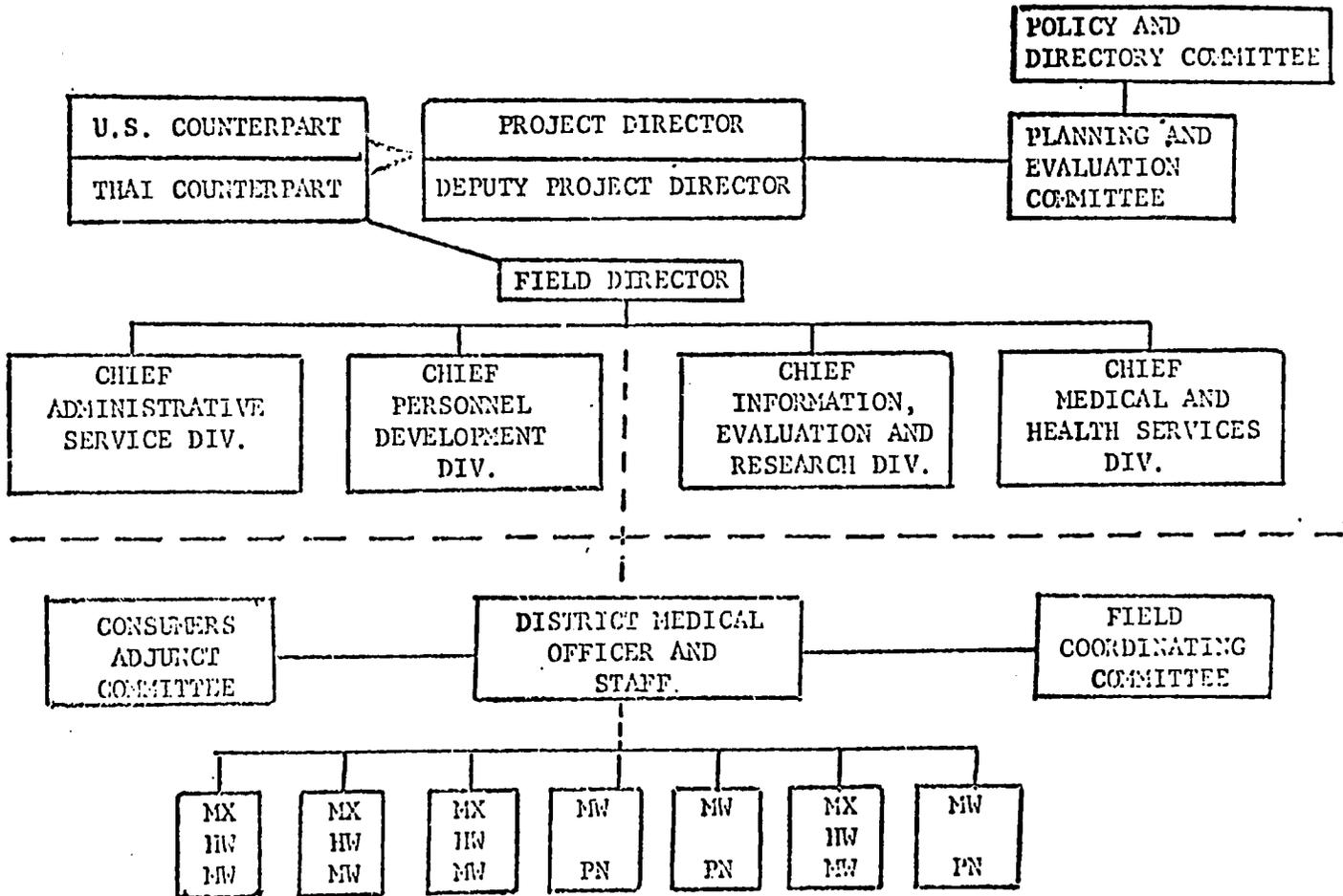
8. Information Related to Each of Above

Vehicle Use  
Building Space Use  
Out-of-pocket Expenditures  
Place of Service Provision  
Recipient of Service (Child, Eligible Woman, Group, etc.)  
Nature of Personnel Activities  
Direct Service by Type  
Supporting by Type

The Administrative Services Division will provide all of the support services for the US funded portion of the sub-project, such as procuring supplies and providing transportation. In addition, it will be responsible for coordinating and insuring the smooth flow of a division's completed activity into planned use by another division. For example, the Manpower Development Division can only conduct meaningful training programs after "task analysis" is completed by the Information-Evaluation-Research Division. The Administrative Services Division is also responsible for working towards replication of the key features of the Lampang project. For example, it will plan the annual seminars in Chiangmai and Bangkok for in country officials and the bi-annual seminar in Bangkok to which representatives from other countries in the region will be invited.

The following is a project organization chart reflecting relationships described above.

DEIDS PROJECT ORGANIZATION



Below this level are volunteers and other local community organizations.

- N.B.
- MX = Medex
  - HW = Junior Health Worker
  - MW = Midwife
  - PN = Practical Nurse

E. Cost Implications

Producing a satisfactory rural delivery system at an affordable cost is a project purpose of overriding concern for the replicability of the system in other provinces of Thailand. The evaluation system will be concerned with cost implications throughout the life of the project. However, it is well to look at cost features now to determine whether activity at the planned level is a practical matter for the Thais, considering ongoing operating costs and replication after US withdrawal from the experiment.

In recent years the RTG has maintained its national health budget at almost a constant percentage of total budget:

|      |       |
|------|-------|
| 1969 | 2.73% |
| 1970 | 3.49% |
| 1971 | 3.41% |
| 1972 | 3.49% |
| 1973 | 3.19% |

On the other hand the national budget has risen rapidly resulting in a doubling of the health budget from \$26.5 million in 1967 to \$53.6 million in 1974. Nevertheless, this latter was about half of the national police budget, thus reflecting national priorities in recent years. These increases have taken place during a period of rapid national growth. Though this growth slowed down in 1973, the RTG

nevertheless boosted its health budget by 9% in 1974.

The price of Thailand's chief export, rice, remains high and it has a reservoir of foreign exchange which it intends to draw down to some extent. The Government has been seeking additional sources of revenue. However, one can only make conjectures about the budgetary outlook in the face of present inflation, rising fuel costs, decreasing US military expenditures in the country, the recent ousting of military leadership at the head of Government and present prospects for a democratically elected parliament.

The MOPH has submitted an FY 1975 budget which represents an increase of 36% over 1974 which probably will be reduced. One can speculate that changes in national priorities will result in a slow down of recent expansions of internal security forces, thus permitting increased funding of social services. This is conjecture, however.

The proposed budget for all government health services in Lampang Province is found on the following page. In examining DEIDS costs to Thailand for replicability, one is hard put to decide what costs are relevant. DEIDS is concerned with delivery of rural multipurpose services. RTG salary increases from \$220,564 in 1975 to \$410,211 in 1978, however, include increases in hospital as well as public health personnel. The hospital, with 21,147 admissions in 1972, serves mainly Lampang municipality with a population of 41,100 and the

surrounding Lampang District of 155,000. This is complicated by the fact that nearly half of the hospitals' expenses is covered by charges and donations. The present public health service works through three district health centers (of 11 planned), only two with a physician, plus 26 tambol health centers (out of 75 tambols) and 26 midwifery centers, and is intended to cover all of rural Lampang Province or 523,000 persons.

PROPOSED BUDGET

|  | <u>1975</u>      |                  | <u>1976</u>      |                  | <u>1977</u>      |                  | <u>1978</u>      |                | <u>1978*</u> |               |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------|--------------|---------------|
|  | <u>APHA</u>      | <u>R.T.G.</u>    | <u>APHA</u>      | <u>R.T.G.</u>    | <u>APHA</u>      | <u>R.T.G.</u>    | <u>APHA</u>      | <u>R.T.G.</u>  | <u>APHA</u>  | <u>R.T.G.</u> |
| Salaries   | 133,620          | 220,564          | 131,020          | 280,032          | 90,120           | 360,171          | 80,220           | 410,211        |              |               |
| Consultants                                      | 38,329           | -0-              | 27,320           | -0-              | 20,820           | -0-              | 27,320           | -0-            |              |               |
| Honoraria  | 17,600           | -0-              | 17,600           | -0-              | 17,600           | -0-              | 17,600           | -0-            |              |               |
| Travel and Per Diem                              | 32,800           | 6,000            | 32,800           | 9,000            | 33,830           | 13,500           | 38,770           | 19,750         |              |               |
| Transportation of<br>Commodities                 | -0-              | 750              | -0-              | 1,025            | -0-              | 1,513            | -0-              | 2,270          |              |               |
| Other Direct Costs:                              |                  |                  |                  |                  |                  |                  |                  |                |              |               |
| Conference                                       | 16,000           | -0-              | 25,000           | -0-              | 24,000           | -0-              | 29,000           | -0-            |              |               |
| Data Processing                                  | 7,500            | -0-              | 7,500            | -0-              | -0-              | -0-              | -0-              | -0-            |              |               |
| Communication                                    | 3,400            | 75               | 3,400            | 113              | 4,000            | 170              | 4,000            | 225            |              |               |
| Printing & Repro.                                | 8,500            | 750              | 4,000            | 1,025            | 6,000            | 1,513            | 6,000            | 2,270          |              |               |
| Stipends   | 91,500           | -0-              | 46,500           | -0-              | 46,500           | -0-              | 46,500           | -0-            |              |               |
| Rent   | -0-              | 20,550           | -0-              | 22,530           | -0-              | 24,708           | -0-              | 27,104         |              |               |
| Miscellaneous                                    | 3,600            | -0-              | 3,600            | -0-              | 3,600            | -0-              | 3,600            | -0-            |              |               |
| Instruction                                      | -0-              | 942,950          | -0-              | 1,995,950        | -0-              | 479,060          | -0-              |                |              |               |
| Equipment, Vehicles<br>Materials and<br>Supplies | 103,250          | 197,280          | 27,060           | 307,240          | 57,260           | 342,160          | 51,680           | 505,455        |              |               |
|  | <u>456,090</u>   | <u>1,388,919</u> | <u>324,800</u>   | <u>2,616,915</u> | <u>303,730</u>   | <u>1,222,785</u> | <u>304,690</u>   | <u>967,285</u> |              |               |
| University of<br>Hawaii:                         | <u>171,281**</u> |                  | <u>171,281**</u> |                  | <u>171,281**</u> |                  | <u>171,281**</u> |                |              |               |
|  | 627,371          |                  | 497,081          |                  | 475,011          |                  | 475,971          |                |              |               |

\*\*60% of this amount is for faculty time to be spent in Thailand.

Projected construction and equipment costs do not progress in a straight line. Construction costs, for example, double between 1975 and 1976, dip to a quarter of the latter level in 1977 and shoot up drastically in 1978 reflecting the proposed construction of a new regional hospital in the province. Since the function of the new hospital is regional rather than provincial, we do not take it into our calculations. The connection between the DEIDS and the whole construction and equipment programs is dubious as the latter represents continuations of national programs set in motion some year ago. However, the new health centers will be supportive of the multipurpose outreach program to some extent. In the attached table we have discounted construction and equipment costs in the projected Lampang budget, have included these in continuing costs, but have omitted hospital construction costs from both on-going and replication costs. It is hoped that experience and evaluation will develop information on the basis of which the Thai and other LDC governments can decide to what extent extensive construction programs contribute to or detract from efforts to reach the rural poor.

Another complicating factor is that a portion of the projected APHA costs will become an RTG responsibility after the departure of APHA and will figure in any replication in other provinces. Lampang dropouts from the system (say 20% annually) would need to be replaced through training programs which presumably would take place in other provinces and perhaps on a regional basis. Continuing training costs for Lampang would thereby not include salaries and honoraria for trainers. Stipends would drop to 1/5 or 2/5 per trainer

both for Lampang and for replication. Experiments with data collection and evaluation would be completed and the resulting system woven into the work of the overall public health organization with few of the APHA special staff retained or needed.

Another uncertainty is the impact of the DEIDS project and evaluation system on other parts of the health system. The continued search for inexpensive rural delivery methods may result, for example, in RTG decisions to reduce costs elsewhere in the system. This possibility is not taken into account in the attached table.

The table examines the whole government health system in Lampang and presents an analytical comparison of Lampang health budgets during the life of the project, continuing costs and costs of replication elsewhere. A great deal of uncertainty and chances of error exist in this analysis.

Projected RTG Budget for Governmental Health System in Lampang,  
Continuing Costs and Potential for Replication

|  | 1975                 |                | 1976           |                | 1977              |                | 1978           |                | Continuing Costs      | Replication Costs (40%) |
|--|----------------------|----------------|----------------|----------------|-------------------|----------------|----------------|----------------|-----------------------|-------------------------|
|  | APHA                 | RTG            | APHA           | RTG            | APHA              | RTG            | APHA           | RTG            |                       |                         |
| Salaries (all Thai) <sup>1/</sup>        | 133,620              | 220,564        | 131,020        | 280,032        | 90,120            | 360,171        | 80,220         | 410,211        | 460,000 <sup>2/</sup> | 430,000                 |
| Consultants (Thai)                       | 38,329               | -0-            | 27,320         | -0-            | 20,820            | -0-            | 27,320         | -0-            | -0-                   | 10,000 <sup>3/</sup>    |
| Honoraria (Thai trainers and perceptors) | 17,600               | -0-            | 17,600         | -0-            | 17,600            | -0-            | 17,600         | -0-            | -0-                   | 4,000 <sup>4/</sup>     |
| Travel and Per Diem (Thai staff)         | 32,800               | 6,000          | 32,800         | 9,000          | 33,830            | 13,500         | 38,770         | 19,750         | 19,750                | 22,000 <sup>2/</sup>    |
| Transpt. of Commodities                  | -0-                  | 750            | -0-            | 1,025          | -0-               | 1,513          | -0-            | 2,270          | 2,270                 | 2,270                   |
| Other Direct Costs:                      |                      |                |                |                |                   |                |                |                |                       |                         |
| Conferences                              | 16,000               | -0-            | 25,000         | -0-            | 24,000            | -0-            | 29,000         | -0-            | -0-                   | -0-                     |
| Data Processing                          | 7,500                | -0-            | 7,500          | -0-            | -0- <sup>3/</sup> | -0-            | -0-            | -0-            | -0-                   | -0-                     |
| Communications                           | 3,400                | 75             | 3,400          | 113            | 4,000             | 170            | 4,000          | 225            | 225                   | 100                     |
| Printing and Repro.                      | 8,500                | 750            | 4,000          | 1,025          | 6,000             | 1,513          | 6,000          | 2,270          | 2,270 <sup>4/</sup>   | 2,500                   |
| Stipends                                 | 91,500 <sup>1/</sup> | -0-            | 46,500         | -0-            | 46,500            | -0-            | 46,500         | -0-            | 2,225 <sup>4/</sup>   | 11,225 <sup>4/</sup>    |
| Rent                                     | -0-                  | 20,550         | -0-            | 22,530         | -0-               | 24,708         | -0-            | 27,104         | 27,104                | 27,104                  |
| Miscellaneous <sup>6/</sup>              | 3,600                | -0-            | 3,600          | -0-            | 3,600             | -0-            | 3,600          | -0-            | -0-                   | -0-                     |
| Construction <sup>7/</sup>               |                      | 31,431         |                | 97,562         |                   | 113,930        |                | 113,930        | 113,930               | 85,837 <sup>1</sup>     |
| Equipment and Supplies <sup>8/</sup>     |                      |                |                |                |                   |                |                |                |                       |                         |
| Equipment                                | 33,640               | 19,728         | 2,500          | 50,432         | 20,360            | 84,638         | 17,280         | 135,638        | 135,638               | 102,603 <sup>5</sup>    |
| Vehicles & maintenance                   | 31,710               |                | 1,560          |                | 1,200             |                | 1,200          | 1,200          | 1,200                 | 1,200                   |
| Materials & supplies                     | 37,900               | 98,640         | 23,000         | 153,620        | 35,700            | 171,030        | 33,200         | 252,728        | 252,728               | 252,728                 |
| <b>TOTAL</b>                             | <b>456,099</b>       | <b>398,488</b> | <b>325,800</b> | <b>615,739</b> | <b>303,730</b>    | <b>771,173</b> | <b>304,690</b> | <b>964,126</b> | <b>1,017,440</b>      | <b>1,002,267</b>        |

- 1/ The APHA costs appear to be high.
- 2/ Assumes minor assumption of APHA functions including manpower development.
- 3/ This may be understated.
- 4/ Assumes 20% dropout and re-training with stipends at 25% of APHA budget
- 5/ Assumes stipend at 25% of APHA budget.
- 6/ Assumes depreciation over 30 years. For example, construction costs of \$942,950 in 1975 are entered at 1/30 that cost which is carried forward in subsequent years. Because the hospital serves regional functions, construction costs of \$8.5 million in 1978 are not included in these calculations.
- 7/ Assumes that since 27% of first class health centers have been built in Lampang and 45% for the nation that construction costs for replication will be in ratio of 55/73.
- 8/ Assumes RTG budget for equipment (including vehicles) and supplies is 50% each, that costs of maintaining their equipment, presently owned and being purchased is covered under supplies, and that equipment life averages five years. Thus RTG equipment budget of \$98,640 in 1975 is reduced to \$19,728, but latter is carried forward in subsequent years.
- 9/ Assumes equipment costs in ratio of 55/73 as for construction. Any training equipment and extra vehicles to be purchased, in lieu of APHA purchase under pilot project would be purchased in first or second year.

At first blush the budget levels of \$1 million per province per year for continuing costs and replication appear impossible to achieve, considering that there are 71 provinces and the health budget is \$54 million in 1974. Upon reflection, however, it is recognized that their implications for the national budget are not immediate. Replication will not take place in all 71 provinces simultaneously but in accordance with a phased plan consistent with budget realities.

If replication in five provinces were to be initiated in 1977 and ten each year after that it would be a remarkable accomplishment. The full weight of fourth year replication for the first five provinces to enter the plan would be felt in 1981, the next ten in 1982, etc. The full budgetary weight for 71 provinces would not be felt until 1987. Since the Thai health budget more than doubled in the seven years between 1967 and 1974, it is reasonable to assume that it can do so in the twelve years between 1975 and 1987.

This assurance that replication is feasible is based upon the whole of the government health system as it exists and as planned by the RTG. The essential element of this DEIDS sub-project, however, is the low-cost integrated delivery system which the Thais have planned as an add-on to the system. The extensive task and cost analysis and evaluation planned for the project aim at determining the cost effectiveness of each element in the system to enable adjustments during the course

of the project activity. It is anticipated that the government system of hospital and public health services in the provinces will look somewhat different in the long-term than is projected herein.

V. Required Actions for Total DEIDS Project

At the present time, the following are the next steps required in order to initiate implementation:

1. Approval of this PROP amendment.
2. Funding and organization of Evaluation/Cost Analysis Task Force.
3. Continuation and approval of Panama and Ecuador projects.
4. Negotiation of terms and conditions with respective Governments. The essential terms of a proposed Agreement between the Royal Thai Government and the APHA are appended. Adjustments in these terms following negotiation will be approved by AA/TA.
5. Completion of two additional satisfactory country proposals.

Country proposals subsequent to the Thailand proposal will be submitted to the normal interbureau review, cleared by the Geographical Bureau concerned and AA/PHA and approved by AA/TA.

## Appendix I

### Essentials of an Agreement Between the Royal Thai Government and the American Public Health Association

Set forth below are essential elements of an Agreement to be concluded by the RTG and the APHA to set the stage for Phase III operations in Lampang Province.

The purpose of the project is to develop and demonstrate a low-cost multipurpose delivery system in Lampang Province, which, as a minimum, provides family planning services, integrated for consumer acceptance with maternal and child health services and nutrition, used by two-thirds of the women of reproductive age and children under six at a cost which does not exceed resources available to the Province, to thoroughly test the system for replicability, and to gain useful experience which can be applied to the establishment of low-cost integrated systems elsewhere in Thailand and in other countries. In order to accomplish this purpose the parties agree to develop an activity as described in Section IV of the AID Non-Capital Project Paper (PROP) dated 6- -74 and entitled Development and Evaluation of Integrated Delivery Systems (DEIDS).

The parties hereto agree to participate jointly in designing an evaluation system for the project, including evaluation of cost implications and the feasibility of replication, and will jointly agree in items to be measured. They

also agree to share information gathered during surveys conducted under this Project with international agencies assisting Thailand in health sector analyses and in major capital programs in the fields of health and family planning.

Further the parties agree to review progress, problems and lessons learned, including system costs, 12 months after the initiation of this Agreement and each 12 months thereafter to recommend adjustments to the system as may be necessary or desirable in light of evaluation results and further developmental work done by the RTG and/or the contractor. In such annual reviews the parties agree to consider costs of services rendered with a view to evolving a system which can be replicated in other provinces within RTG resources. Such considerations would include relationships between the various parts of the rural delivery system and between this system and other parts of the curative and preventive health systems including existing and planned construction, equipment and staffing programs. The review group will include representatives of APHA, the subcontractor, AID, DTEC and the BOB and may, as the parties agree, include others with an interest in project success. The RTG also agrees to publish data and experience so that other parties interested in developing health delivery systems will benefit from the experience gained. Individually the respective parties to the Agreement agree to provide the following:

APHA agrees to provide the following:

1. U.S. Personnel

a. U.S. Counterpart - Should be an individual with an M.D. degree with experience in management of public health programs and if possible with experience in Thailand. It is intended that he will reside in Thailand during the period this project remains operative.

b. A US training advisor resident in Thailand.

c. Project Manager (half-time) at the subcontractor institution.

d. Executive Secretary at the subcontractor institution.

e. Consultants - Up to eight consultants (about one-month each) per year to provide varying inputs as required by the project, including evaluation.

f. Travel and administrative costs such as housing, per diem, etc.

2. Funding for Thai Personnel: These persons will be paid in U.S. purchased Baht in consideration of their proposed contribution to the innovative and demonstration features of the project. Their primary concerns will be with data gathering, interpretation and analysis, experimentation, evaluation, training and demonstration.

a. An administrative assistant and a secretary for the U.S. counterpart.

b. Administrative Services Division including a Chief of the Division, one secretary, 3 drivers and 2 janitors.

c. Manpower Development Division including a Chief of the Division, one administrative assistant, 4 technical instructors and one secretary.

d. Health Services Division including a Chief of the Division and one secretary.

e. Other Staff

(1) Community Survey and Vital Statistics Study, including one statistician, 3 information supervisors, 1 computer programmer, 2 statistician assistants, 12 data collectors and 8 coders.

(2) Administrative Analysis including 1 administrator 1 MM, 1 social anthropologist 3 MM, and 1 secretary.

(3) Consultant services will be purchased in Thailand to the extent possible to allow broad local institutional involvement in project activity.

In addition to the above, the APHA will provide training stipends for workers in training and will pay the normal Thai honorarium for training instructors required. It is understood that normal administrative costs of U.S. employed personnel such as per diem, travel, and other similar costs will be part of the APHA contribution. APHA will also provide travel costs and per diem not to exceed \$ \_\_\_\_ per day for RTG officials while in travel status in connection with Committee and Conference duties under this project.

The USG contribution to this Project, obligated in a contract with the APHA, is \$1.12 million which is intended to cover APHA costs for the Thailand Project during the first two years.

The RTG will promote the involvement of private and volunteer workers and communicators in the multipurpose health delivery system. It will provide training for monks, tambol doctors, traditional midwives, village headmen and other appropriate individuals to maximize services and contacts with the rural population. Specifically the RTG will undertake to provide annual increments of personnel to be absorbed in the training system in numbers adequate to reach the target goals described in the PROP. Recruitment will begin immediately for 20 MEDEX candidates, and an adequate number of volunteer health promoters and indigenous midwives for the first increment of training.

Further, the RTG will continue to maintain and operate their health facilities and to expand Health Centers in Lampang in accordance with existing plans. The RTG will notify APHA when facilities cannot be completed on schedule. To the extent such facilities are supportive of the project, the RTG and APHA will jointly modify Project plans and the system design.

The RTG will continue to provide to the Lampang clinical system drugs, other treatment items, supplies and equipment.

The RTG will also give the new health provider (MEDEX) an appropriate classification and salary schedule within an official RTG personnel system so that salaries and amenities will be commensurate with their expected function in the health system. If no immediate classification is available because of bureaucratic prohibitions a specific waiver will be sought.

Further, the RTG will release personnel to be employed in the project, as provided by the APHA funding portion of this Agreement. Such release will be for full-time, long-term assignment to the respective job assignment.

In FY 1974 the RTG health budget for Lampang Province amounted to ₪ \_\_\_\_\_ (\$ \_\_\_\_\_). In FY 1975 the RTG health budget in Lampang is expected to be ₪ \_\_\_\_\_ (\$ \_\_\_\_\_) of which (or in addition to which) the RTG will commit ₪ \_\_\_\_\_ (\$ \_\_\_\_\_) in direct support of the DEIDS Project. The RTG agrees that over the period it receives US assistance for this Project its budgetary contribution in direct support of the Project will exceed 25% of the total cost of the Project.

(Note: Some RTG contributions in direct support of the Project may be from funds not included in the health budget for Lampang. Therefore, APHA negotiators should take care in choosing the appropriate phraseology for application above.)

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

## Appendix 2

Life of Project:  
From FY 1977 to FY 1979  
Total U.S. Funding  
Date Prepared: 5-74

Project Title & Number: DEIDS FOR THAILAND - PHASE III

| NARRATIVE SUMMARY   | OBJECTIVELY VERIFIABLE INDICATORS  | MEANS OF VERIFICATION  | IMPORTANT ASSUMPTIONS   |
|---|--|--|---|
| <p>Program or Sector Goal: The broader objective to which this project contributes:<br/>The development of a delivery system which provides at least minimal health, population, and child nutrition services to the majority of the Thai population at a cost within the public and private resources of Thailand</p>  | <p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> <li>1. Regular accessibility by the Thai majority to simple MCH service</li> <li>2. Costs do not exceed average per capita health resources in the public and private sector.</li> <li>3. Reduction of fertility, child malnutrition, and MCH morbidity and mortality.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Community health, nutrition, and population surveys.</li> <li>2. Program cost analysis.</li> </ol>   | <p>Assumptions for achieving goal targets:</p> <p>RTG policy accepts population and nutrition as important objectives within framework of health services.</p> <p>RTG and public opinion support social efforts to achieve equity in distribution health services.</p> <p>Seraphi Project experience transferable to Thailand.</p>  |
| <p>Project Purpose: To develop and demonstrate a delivery system in Lampang Province which, as a minimum, provides family planning services, integrated for consumer acceptance with MCH, other basic health services, and nutrition, to 2/3 of women of reproductive age and children under six at a cost which does not exceed resources available to the Province. Test system for replicability. Obtain experience useful elsewhere.</p>  | <p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> <li>1. Two-thirds of women of reproductive age and their children under six have convenient access to essential FP/MCH services and information at a cost within the public and private resources of Lampang Province.</li> <li>2. Willingness and ability of Thai Government to introduce program in other provinces within their resources.</li> </ol> | <p>Community surveys which provide quantitative measures of receptive accessibility by at least two criteria. Percentage eligible women practice contraception.</p> <p>Percentage mothers who provide protein supplementation to diet of children under six.</p>   | <p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> <li>1. Thai social policy &amp; customs support population services within contact of MCH &amp; other health services.</li> <li>2. If desired consumer services are made conveniently available, they will be used.</li> <li>3. Consumers &amp; providers in both public &amp; private sector are already motivated to seek higher distribution of services within existing resource limits.</li> <li>4. The formal &amp; non-formal networks exist for majority coverage, subject to level of cultural acceptable linkages.</li> <li>5. Project will sustain high-level RTG support for achieving outputs.</li> </ol> |
| <p>Outputs:</p> <ol style="list-style-type: none"> <li>1. An operational system which delivers minimal family planning, child nutrition &amp; basic health services to 2/3 (at least) of women of reproductive age and children under 6 at a cost within Thai capability</li> <li>2. Dissemination of experience in Thailand</li> <li>3. training of Public and private leaders from all Thailand provinces in the replicable elements of the system.</li> </ol>  | <p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> <li>1. Progressive increase in target population coverage from 20% in '74 to at least 66% in '81.</li> <li>2. Annual project seminar, (Chiengmai, Annual project review Bangkok)</li> <li>3. Key health leaders in all provinces trained.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Community surveys, sampling, task analysis, administrative analysis, cost analysis by Evaluation Division.</li> <li>2. Conference proceedings or report.</li> <li>3. Participation of leadership in annual seminars and project evaluation.</li> </ol>   | <p>Assumptions for achieving outputs:</p> <ol style="list-style-type: none"> <li>1. Seraphi experience applicable for part of indigenous practitioners, monks, volunteers.</li> <li>2. MEDEX will effectively extend curative &amp; preventive serv. to unserved rural populations.</li> <li>3. Part. of monks has agreement of Religious orders &amp; of RTG.</li> <li>4. Eval. will permit requisite changes during project progress.</li> <li>5. RTG official instit. will accept formal/nonformal link in long-run.</li> <li>6. RTG accepts in principle option to apply the DEIDS system, if successful, to other Thai provinces.</li> </ol>   |
| <p>Inputs:</p> <p>RTG: 1) Continue ongoing health programs; salaries, travel, construction &amp; equipment, 2) Recruit &amp; pay salaries of MEDEX, 3) Provide facilities for training &amp; office space for US contract paid personnel, 4) Release Thai personnel to be paid by U.S. contract to man 4 project divisions, 5) Furnish officials for Policy Committee &amp; Planning &amp; Evaluation Committee, 6) Provide Project &amp; Deputy Project Director &amp; Field Director, 7) Conduct &amp; participate in annual Bangkok &amp; Chiengmai Conferences and regional seminars.</p> | <p>Implementation Target (Type and Quantity)</p> <ol style="list-style-type: none"> <li>1. Establish village consumer committee &amp; village coor. committees in area of 10 districts. Provision services to Hong Chat District in '74-76, 6 Southern Districts starting '77, 4 Northern districts starting '78-'81.</li> <li>2. See Continuation sheet.</li> <li>3. See Continuation sheet.</li> </ol> <p>DEIDS Budget Cont.</p>   | <ol style="list-style-type: none"> <li>1. Joint Committee guidance &amp; planning and design recommendations. Feedback from community surveys &amp; info from Eval. Division percentage pop. surveyed.</li> <li>2. Number of Trained Personnel.</li> <li>3. Vital statistics report communities survey, nutrition survey, clinical record exam., serv. record abstracts, task analysis, cost analysis, Admin. anal.</li> </ol> | <p>Assumptions for providing inputs:</p> <ol style="list-style-type: none"> <li>1. Format design is based on Phas. II studies by Thai committees, but is subject to cont. evaluation &amp; re-adjustment to advise operational goals.</li> <li>2. RTG accepts need for proj. modifications based on evaluation.</li> <li>3. Absence of adequate baseline &amp; cost data will require collection of this data during phase III, year 1 and sub-years.</li> <li>4. RTG accepts importance of eval. &amp; need for additional consultation on eval. system design</li> </ol>  |

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U S Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

Project Title & Number: \_\_\_\_\_

| NARRATIVE SUMMARY   | OBJECTIVELY VERIFIABLE INDICATORS  | MEANS OF VERIFICATION  |  |   |   |   |   |   |   | IMPORTANT ASSUMPTIONS  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
|---|--|--|--|---|---|---|---|---|---|--|-----------------|-----|------|---------|---------|---------|------|---------|---------|---------|------|---------|---------|---------|------|---------|---------|---------|------|---------|---------|-----------|---|
| <p><del>Project Purpose:</del></p> <p>Inputs:<br/>US: 1) Counterpart &amp; Training Officer resident in Thailand, 2) Pay salaries of Thai Staff for 4 project divisions, 3) 8MM US consultants, 4) Stipends for trainees, 5) Honoraria and travel for Thai consultants, 6) equipment and supplies</p> | <p><del>MEDEX Preceptors in Field</del></p> <p>2. MEDEX Preceptors in Field</p> <p>Certified MEDEX in Field</p> <p>Traditional Midwife</p> <p>Health Post workers<br/>(Monks, Tambol, doctors &amp; Communicators)</p> <p>Cross Training of Administrators and Supervisors</p> <p>Service Personnel</p> <p>Interns</p> <p>3. CY</p>  | <p>'74</p> <p>0</p> <p>60</p> <p>540</p> <p></p> <p>155</p> <p>40</p> <p>0</p> | <p>'75</p> <p>20</p> <p>240</p> <p>4860</p> <p>2700</p> <p>155</p> <p>280</p> <p>5</p> | <p>'76</p> <p>55</p> <p>420</p> <p></p> <p>155</p> <p>520</p> <p>10</p> | <p>'77</p> <p>85</p> <p>600</p> <p>5400</p> <p>5400</p> <p>155</p> <p>620</p> <p>15</p> | <p>'78</p> <p>85</p> <p>600</p> <p></p> <p>155</p> <p>620</p> <p>20</p> | <p>'79</p> <p>85</p> <p>600</p> <p>5400</p> <p>5400</p> <p>155</p> <p>620</p> <p>25</p> | <p>'80</p> <p>85</p> <p>600</p> <p></p> <p>155</p> <p>620</p> <p>30</p> | <p>'81</p> <p>85</p> <p>600</p> <p>5400</p> <p>5400</p> <p>155</p> <p>620</p> <p>30</p> | <p><del>Assumptions for providing inputs:</del></p> <p>5. RTG fully supports project inputs. Project development is primarily of Thai design. Budget estimates provided 5 years subject to review on project progress and required additional costs.</p> |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
| <p>Project Purpose:</p>   | <p>1974 Consultant team to Develop and Review Evaluation Guidelines</p> <p>1974 Develop survey instrument-Recruit personnel - Train Personnel Begin Survey (underlying PFETEST) (1974-76)</p> <p>1975 Train Coders</p> <p>1979-81 Recruit personnel and train for survey (repeat of 1974 survey)</p> <p>1975, '78, '81 - Nutrition assessment and Dietary Survey</p> <p>1974 - 1979 service records/technical records study.</p> <p>Annual task analysis</p> <p>Annual cost analysis</p> <p>Annual administrative analysis</p>   |  |  |   |   |   |   |   |   | <p>Assumptions for achieving purpose:</p>  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
| <p>Outputs:</p>   | <p>DETAILED BUDGET *</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">APIHA</th> <th style="text-align: center;">Univ. of Hawaii</th> <th style="text-align: center;">RTG</th> </tr> </thead> <tbody> <tr> <td>1975</td> <td style="text-align: right;">456,090</td> <td style="text-align: right;">171,281</td> <td style="text-align: right;">449,969</td> </tr> <tr> <td>1976</td> <td style="text-align: right;">325,800</td> <td style="text-align: right;">171,281</td> <td style="text-align: right;">620,695</td> </tr> <tr> <td>1977</td> <td style="text-align: right;">303,730</td> <td style="text-align: right;">171,281</td> <td style="text-align: right;">743,725</td> </tr> <tr> <td>1978</td> <td style="text-align: right;">304,690</td> <td style="text-align: right;">171,281</td> <td style="text-align: right;">967,285</td> </tr> <tr> <td>1979</td> <td style="text-align: right;">305,000</td> <td style="text-align: right;">172,000</td> <td style="text-align: right;">1,000,000</td> </tr> </tbody> </table> <p>*Excluding construction</p> |  |  |   |   |   |   |   |   | APIHA  | Univ. of Hawaii | RTG | 1975 | 456,090 | 171,281 | 449,969 | 1976 | 325,800 | 171,281 | 620,695 | 1977 | 303,730 | 171,281 | 743,725 | 1978 | 304,690 | 171,281 | 967,285 | 1979 | 305,000 | 172,000 | 1,000,000 | <p>Assumptions for achieving outputs:</p> |
|   | APIHA  | Univ. of Hawaii  | RTG  |   |   |   |   |   |   |  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
| 1975  | 456,090  | 171,281  | 449,969  |   |   |   |   |   |   |  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
| 1976  | 325,800  | 171,281  | 620,695  |   |   |   |   |   |   |  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
| 1977  | 303,730  | 171,281  | 743,725  |   |   |   |   |   |   |  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
| 1978  | 304,690  | 171,281  | 967,285  |   |   |   |   |   |   |  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
| 1979  | 305,000  | 172,000  | 1,000,000  |   |   |   |   |   |   |  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |
| <p>Inputs:</p>  |  |  |  |   |   |   |   |   | <p>Assumptions for providing inputs:</p>  |  |                 |     |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |         |      |         |         |           |   |