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JUN 16 1976

A/PPC
ACTION MEMORANDUM FOR THE ADMINISTRATOR

THRU: EXSEC

Ashel
FROM: AA/PPC, Philip Birnbaum

SUBJECT: Project Paper for Danfa Rural Health/Family Planning in Ghana

Problem: Since this three year grant project extension totals more than \$2 million and exceeds a five year project life, your signature is required to authorize the attached project paper.

Discussion: This paper proposes a three year extension of the project with final obligations planned for FY 1978. Planned obligations total \$2.2 million for a total life of project cost of \$5.9 million, (plus \$467,000 of PL 480 Title I local currency). The GOG input is an additional \$2.5 million. Obligations to date of \$3.7 million have been entirely Title X funded; however since health is receiving an increasing emphasis in this project, the Africa Bureau will use health funds to cover 50% of FY 1976 and TQ obligations, 75% in FY 77 and 85% in FY 78. Planned obligations equal the amounts programmed in the FY 1976 Africa C.P., Page 44 and the FY 1977 C.P., Page 43.

Costs for services under the project have been running at a higher level than had been estimated in the original PROP. This development has now been accounted for by the addition of an inflation factor. In addition because anticipated arrangements for computer processing and data analysis did not materialize, supplementary increased funding for services and equipment to accomplish these tasks was provided.

The Danfa project is a major research and training program designed to assist the GOG in extending and improving rural health and family planning services by testing and demonstrating practical, low-cost delivery systems and to strengthen the Ghana Medical School capability for community health oriented training and research. U.S. assistance is provided under a contract with the University of California, Los Angeles Medical School. Findings of this project have been used in the refinement of the GOG approach to health and family planning services delivery. The final three year period of the project will permit additional training, data gathering, analysis and publication that will be useful not only to Ghana, but to other countries.

A major evaluation of this project conducted in 1975 recommended a) continuation of the project, b) more emphasis on training and operational research and less on testing hypotheses, and c) increased involvement of Ghanaians in initiation and direction of project activities. These recommendations have been incorporated in the attached paper. An effort

was made to reduce the amount of data analysis to take place in the U.S. but the complexity of the data and the limited staff capabilities and computer facilities in Ghana require substantial U.S. based activity. There are no outstanding issues. The Project Paper has been reviewed and cleared by all the Bureaus and Offices concerned.

Recommendation: That you approve the attached Project Paper proposing a three year continuation of U.S. support to the Danfa project.

Attachment:

Project Paper, Danfa Rural Health Family
Planning, No. 641-0055

APPROVED: John E. Murphy

DISAPPROVED: _____

DATE: JUN 16 1976

Clearances:

AA/PHA:FPinkham JP Date 6/14/76

AA/AFR:SScott SS Date 6/11/76

GC:CGladson CG Date 6/9/76

PHA/POP/AFR:CMiracle CM Date 6/7/76

PHA/POP:RIRavenholt RR Date 6/7/76 RB

PHA/PRS:CDMcMakin CD Date 6/10/76

AFR/CAWA:JCo JC Date 6/10/76

AFR/DP:RHuesmann RH Date 6/10/76

AFR/DR:PLYman PL Date 6/8/76

GC/TFHA:ARRichstein AR Date 6/8/76

PPC/DPRE:JWelty JW Date 6/10/76

PPC/DPRE:AHandly AH Date 6/11/76

AFR/CAWA, DAGriffith DA Date 6/11/76

PM
PHA/POP/AFR:FMartin:jhw:6/7/76

PROJECT PROPOSAL
DANFA RURAL HEALTH AND FAMILY PLANNING PROJECT
(641-0055)

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PART I

SUMMARY AND RECOMMENDATIONS

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PART I

SUMMARY AND RECOMMENDATIONS

A. USAID Summary and Requested Authorization

The following phase of the Danfa project beginning in 1976 is part of a logical progression in the project's development. The period 1970 through 1975 has been a period of organization, data gathering, training, concentrated research, analysis and evaluation. In the process, lessons have been learned and new ideas have evolved which allow the project to be even more responsive to the nation's priorities, prospects and problems.

Following the March 1975 project review meeting and evaluation, the recommendations and revised strategy for the project were reviewed in AID/W by Danfa project and USAID personnel. These AID/W discussions have been followed by long and intensive discussions in Ghana which have resulted in a mutually agreed upon program for the following phase. The strategy as shown below responds to the overall assessment and recommendations made by the AID/W evaluation team and agrees with the recommendation that the project should focus on:

1. Institutional Development
2. Training
3. Operational Research
4. Epidemiological Studies

In substance, the strategy recommended does not depart from previous Danfa project activities which still aim at strengthening the capacity of the Department of Community Health, Ghana Medical School, to train personnel

capable of conducting operational research and delivery programs in public health, MCH and family planning fields. Project personnel also agree that a primary objective will be to strengthen functional linkages between the Danfa Project and the operating agencies to assist in the rapid application of the findings.

During the latest period, several favorable developments have occurred which strengthen the project's institutional base:

1. The Department of Community Health, Ghana Medical School, has organized a Danfa Project Policy Committee consisting of various high level GOG officials to review Danfa and other health and family planning activities. The plan is that semi-annual reviews will be held to include members of the Ministry of Health (MOH), National Family Planning Program (NFPP), and Ministry of Economic Planning (MEP), plus other concerned agencies regarding policy and application of research findings.

2. Project financial responsibilities for the Danfa research program have been assumed by the Government of Ghana by providing for all reoccurring local currency financial requirements while at the same time increasing staff positions at the Department of Community Health/Danfa Project.

With these and other positive developments, USAID is pleased to recommend:

1. Continuation of USAID assistance to the Ghana Medical School, Department of Community Health, through February 1979.

2. Accelerated phase-out of contract field staff ending on or about January 1978 with final review in November 1978 and final report to be issued in February 1979.

3. Additional funds for 134 participant months of U.S. and third country training over the period of the contract services.

4. Project funding for the 8.5 years of project life not to exceed \$6.4 million.^{1/}

^{1/} Complementary supporting U.S. assistance to the cooperating agencies (MOH, NFPP) takes into account other important inputs required for implementation and application of Danfa findings. Refer to the Management of Rural Health Services Project (0068), proposed FY 78-80 Delivery of Rural Health Services Project (0082), and Population Support Project (0064).

B. Brief Description of the Danfa Project

In the following phase of this project, (through February 1979), AID will provide contract services with UCLA for 25 worker years of technical assistance at UCLA and in Ghana and supportive services (participant training, commodities) to assist the Department of Community Health, Ghana Medical School, in carrying out research into the delivery of health and family planning services designed to:

(GOAL) ENABLE THE GOVERNMENT OF GHANA TO EXTEND AND IMPROVE RURAL HEALTH AND FAMILY PLANNING SERVICES IN A RATIONAL MANNER.*

The project will continue to focus on the following objectives:

- (PURPOSE)
- I. INVESTIGATION OF THE STATE OF A RURAL GHANAIAN COMMUNITY, CONCENTRATING ON FACTORS ASSOCIATED WITH HEALTH AND FAMILY PLANNING BEHAVIOR;
 - II. STRENGTHENING OF INSTITUTIONAL CAPABILITY AT THE GHANA MEDICAL SCHOOL TO CONDUCT RESEARCH AND TRAINING OF DOCTORS AND OTHER HEALTH WORKERS IN THE DELIVERY OF RURAL HEALTH AND FAMILY PLANNING SERVICES;
 - III. DEMONSTRATION OF SEVERAL COST-EFFECTIVE HEALTH CARE SYSTEM MODELS TO INCLUDE FAMILY PLANNING AS AN INTEGRATED COMPONENT SUITABLE TO THE GHANAIAN CONTEXT;
 - IV. TRANSFER OF INFORMATION DERIVED FROM PROJECT ACTIVITIES TO RELEVANT GOVERNMENT OF GHANA AGENCIES ON AN ONGOING BASIS.*

* The April 1975 AID/W review of the Evaluation Report used the above Goal and Purpose statements as its terms of reference. These statements follow the GOG's own mandate as decided during meetings in Accra prior to the AID/W review.

The objectives described above are similar to those given on the original 1970 Danfa project proposal. However, the revised strategy does reflect changes and evolution both in the thinking of the project staff derived from five years of experience in the field and in the policy of the Ghana government with regard to delivery of health and family planning services. The significant change is a shift away from emphasis on the testing of hypotheses concerning family planning. This shift follows from the government's now established principle of integrating family planning with other health care services (MCH).

OUTPUTS: (Systems Approach)

Each of the four project purposes given above generates a set of specific outputs to be met. Each output in turn is accomplished by a set of activities (see page 36 for listing of specific activities). The total of the activities comprises an integrated systematic approach toward achieving the project's goal and project purposes:

Outputs related to - Investigation of the State of a Rural

Ghanaian Community: (Project Purpose I)

Output A. Definition of health and health-related characteristics of rural population for purposes of planning and evaluation.

Output B. Identification of the characteristics and determinants of health and family planning-related behavior.

Output C. Examination of the physical and social environment and interpretation of the relationship of these factors to health and health-related behavior.

Outputs related to - Strengthening of institutional capability and training of doctors and health workers for rural services: (Project Purpose II)

Output A. Expanded awareness of medical students and post-graduate physicians on the special problems of delivering health care and family planning services in the rural environment.

Output B. Doctors and other professional personnel trained for effective management of a rural health district.

Output C. Development of strategies for training professional, para-professional, traditional and volunteer health workers in rural health care.

Output D. In-service training program for health workers from outside Danfa area.

Output E. Trained specialists in the field of competence required to develop the full range of capabilities needed in the long-range teaching/research programs of the Department of Community Health.

Outputs related to - Development of operational models for the delivery of health and family planning services: (Project Purpose III)

Output A. Systems for increased accessibility of health and family planning services.

Output B. Methods which demonstrably increase community participation in the health care system.

Output C. Service models which increase the effectiveness of human, physical and financial resources.

Output D. Methods for improvement of health care.

Output E. Methods for improvement in environmental sanitation.

Output F. Methods for improvement of nutritional status in rural communities.

Outputs related to - Transfer of information derived from the project to the Government of Ghana: (Project Purpose IV)

Output A. Systematic information flow to appropriate GOG agencies.

Output B. Established Danfa Project Information Unit.

Output C. Production of monographs, professional articles, book chapters, operational planning guides, etc.

C. Summary Comments on Revised Program

As already stated, the revised strategy represents a progression from the approach followed to date in the sense that emphasis will now be placed on evaluation of the demonstration models rather than on statistical testing of the hypotheses concerning family planning. The effect of changing the project's strategy is to free the family planning component from a number of constraints imposed by the previous research design. As a result, the coming phase of the project will see a strengthening of effort in family planning as an integral component of health services within a framework of three different levels of available health services in the three research areas which are representative of a majority of rural Ghana.

Since activities to be undertaken have been part of the original terms of reference given in 1970, project activities are well under way and have been for some time. A few, in fact, are near the end of their field phases and are being scaled down. Much of the demographic work is in this category. All of the baseline surveys required to investigate the state of the rural health community (Purpose I) have been completed as have second rounds of these surveys. Decisions on subsequent rounds await comparative analysis of first and second round data. In any event, it is anticipated that most of any follow-on surveys which appear necessary will be less elaborate than the early ones which were needed to provide a sample description of the rural health, cultural and physical environment.

A few of the activities planned for the next phase of the project either are yet to be started or are in fairly early stages of implementation.

For example, the revision of teaching materials for use outside the Danfa project will be a natural follow-on from the current development of methods for training professional health workers, traditional health workers, and volunteers in the Danfa program. Also, in-service training for health workers for other parts of Ghana represents a further effort to transfer knowledge gained in training project staff and to multiply the effect of the training given these people.

The accent on operational research reflects the opinion of both the project staff and outside observers (evaluation team) based on a review of work done during the past five years in the field. This emphasis arises from firm commitment of the Ghana Government to rapid expansion of rural health services with an emphasis on community self help and preventive health care. Project research and operations have already produced replicable modules including census procedures, cost analysis, the satellite clinic concept, mass approaches to delivery of preventive health services, malaria prophylaxis and use of health education assistants and traditional health workers.

The relaxing of rigid research constraints allows the family planning component and other health services to be expanded in all three areas by means of several innovative and inexpensive approaches centering around "voluntary" workers. Development of this approach of community education and community participation is consistent with the Ghanaian social system and provides a means for increased outreach. The parameters of new activities will be defined in such a way that they will lie within the limits of nationally replicable physical, human and financial resources.

D. Policy Issues

1. Allocation of resources to reach rural communities:

ISSUE: Can Ghana make the transition to a strategy which places primary emphasis on the preventive and promotive health services to the rural poor?

The evidence suggests that substantial improvement could be made using available resources with improved research, planning and management. This is singularly important since the rural poor form a large proportion of the populace that is difficult to reach. In rural Ghana, the health environment includes many serious hazards to health, communication is severely limited, and the conditions of service are difficult,

a. The practical problem is the allocation of an equitable share of resources to the majority of the population when the per capita cost of minimum rural services may require in the short term considerably more resources than for comparable services in an urban/semi-urban setting. At the same time, the cost of construction of one urban center could mean long-term benefits foregone in rural outreach services by equal investment in possibly as many as 10 health posts and 30 satellite clinics.

Rural-oriented health systems have not been fully explored and examined and the problems are not always fully realized. Development of systems and full commitment to a rural system may come slowly especially in view of the tendency toward investment visibility. Development of cost-effective systems will be examined but implementation and final investment decisions are out of

the project's control and decisions made may run counter to real rural health needs. In any case, cost-effective systems must be promoted and carefully considered and fed into the decision-making process of the operating agencies if there is to be spread and outreach of health and family planning services.

b. The problems of conditions of service in the rural areas are limiting factors to the growth of a community-oriented or rural-oriented health care structure. Some of these deficiencies are found in living conditions, salaries, lack of career incentives, logistic support and failure to delegate authority with responsibility or a high degree of frustration with the "system."

Complementary USAID-supported programs with the Ministry of Health (Management of Rural Health Services) addresses this problem and a basic Danfa project assumption is that with improved planning and efficient use of resources, rural service can become more attractive and sufficient incentives can be provided to satisfy basic needs.

2. Coordination of health, family planning and other research efforts:

ISSUE: Can health and family planning research be properly coordinated and integrated into Ghana operational programs?

a. Danfa project research conclusions to date on low cost, integrated health and family planning services are widely accepted. However, there are weaknesses in the linkages to the operating agencies. There is a need

for proper coordination between research (WHO, Danfa, Population Council) and the executing agencies, and smooth information flow to planning units at the central level. Concurrent efforts must be made in policy coordination at high levels and donor coordination to avoid duplication and other conflicts. USAID is encouraged that a structured formal linkage from the Danfa project to the Ministry of Health and the GNFP through the Policy Advisory Committee is now being strengthened.

b. If health improvements are not accompanied by effective family planning services, other health and economic progress will be negated. It is obvious that with improved health there is reduced mortality, therefore accelerated population growth, therefore increased health pressures... A known constraint in population programs is the cultural bias toward large family size. It is hoped that once people perceive a reduction in infant and child mortality they may want smaller families, but the interval between health improvement and this perception may be considerable.

E. Statements on Abortion and Host Country Contribution

None of the A.I.D. funds made available under the project shall be used to pay for the performance of abortions, as a method of family planning, or to motivate or coerce any person to practice abortion.

The GOG contribution to this project is \$2,511,000. This figure is nearly one-half the AID input and adequately meets the statutory requirement that the host country government contribute at least 25% of the total project costs of about \$9.2 million.

PART II

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PART II

PROJECT BACKGROUND AND ACTIVITIES TO DATE

A. Setting

The national data collection on health conditions in the country is still considered inadequate and development of proper surveillance and reporting systems at the district level are one of the objectives of the Danfa Rural Health and Family Planning Program. However, it remains significantly true in 1975 that less than 30 percent of the population of Ghana has access to reasonably adequate curative services and a still smaller percentage of the population to preventive health services. Despite continued growth and expansion of health care systems, the rural poor suffer a disproportionate burden of disease from largely preventable causes. The major health problems in the rural areas are infectious and parasitic diseases and malnutrition deriving largely from poor environmental sanitation, poor access to health care services (particularly preventive services), high birth rates, and a general ignorance of health matters. The health problems are particularly acute in the case of young children and their mothers.

During the last five years the Danfa Project has developed information that will provide the nation with an accurate sample profile of the health status of the population. This information on health and family planning statistics, primarily derived from longitudinal studies, vital events registration, village health surveys and household health-related behavior surveys, is now being analyzed and will provide an important base for health and development planners in the future.

1. Population Factors:

Ghana's population in 1975 is estimated to be close to 10 million. The country is not densely populated, with an average of about 105 persons per square mile, but the population is growing at an estimated rate of 3.0 to 3.3 percent per year with characteristic high fertility and declining mortality. At the current growth rate, the population could double in just over 20 years.

a.

DEMOGRAPHIC/VITAL RATES

(Estimates)

Total Population	10,000,000
Growth Rate	3.0 to 3.3
Crude birth rate	47 to 53
Crude death rate	17 to 20
Total fertility rates	6.5 to 7.5
Maternal mortality per thousand deliveries (1960)	10 to 12
Infant mortality rate	137 to 196
Life expectancy at birth	42 to 47

b. Migration:

A significant demographic factor is the increased movement of the population from rural areas to urban centers, and occupational shifts from farming to other occupations and back to farming. In the past the movement was considered generally to be from depressed areas to urban

centers, for example, the Northern and Upper Regions to Kumasi, Accra, Takoradi, etc., but in recent times the rural-urban migration to the urban areas from all rural areas has become alarming. Migrants arriving in the urban centers often arrive lacking any urban skills and employment opportunities are limited. Health and development planners are therefore faced with dual problems related to both urban growth and to the larger problem of providing services to the rural poor who still comprise about 70 percent of the population.

c. Cultural Attitudes:

An important element in traditional Ghanaian life is the high value placed on children. Fertility in both men and women is greatly cherished while childlessness provokes sad and agonizing reactions from relatives and the community at large. Ghanaian family attitudes favor larger families than in many of the other developing countries. The international range of "ideal" family size is 3.2 to 5.0 children while in rural Ghana it is 7.5. This is influenced by high child mortality and the perceived need for security and family labor. However, there are good indications that some Ghanaian women do want fewer children and are concerned with their health, therefore a latent demand for family planning exists in a certain proportion of the women in child bearing age.

Considering the strong influence of families, church groups and communities on health and family welfare, there is a long-term need for continued social and environmental studies which will provide information for health/family planning education programs aimed at reducing pronatalist tendencies and

promoting the benefits of child spacing and better health practices.

2. Related Nutrition and Social Services:

The essentially unchecked rapid population growth rate based on strong pronatalist tendencies among the population, especially in the face of declining mortality rates, is posing severe economic and social strains on the development of the nation, including the related nutrition sector services. In general, women start their families while still very young and have many closely-spaced pregnancies. The consequences often appear in unfortunate social and health problems for the mother, her infants and her family. Anemia and inadequate intake of nutritious food further compound the health problems of mothers. Early weaning, lack of suitable local weaning foods and inadequate immunization against common infectious diseases often increase infant and childhood mortality.

a. Nutrition:

Most observers believe that the nutritional status of the population has not improved in the last 10 to 20 years. In fact, most likely it has declined during this period. Estimates are that the lowest-income families receive about 60 percent of their protein needs and about 70 percent of their caloric needs. Infants, young children, pregnant and lactating women are the most severely affected, receiving an even smaller proportion of their needs. While deficiencies are found in all areas of the country, the Northern and Upper Regions are the most seriously affected. The nutritional problems stem from a variety of causes and require a multi-disciplinary approach to their solutions.

Causative factors in addition to those already mentioned as health problems include periodic drought in certain areas, insufficient production, lack of storage facilities, inadequate consumption of protein rich foods, low per capita incomes, food taboos, excessively large family size, inadequate spacing of pregnancies, inadequate health services and lack of education or nutritional knowledge.

b. Social Factors:

In summary, the unchecked rapid population growth is posing severe economic and social strains on the development of the nation. These may be outlined as follows:

1) Food Availabilities - The national goal of agriculture is self sufficiency in all food production. Any progress or success may be negated by high population growth rates.

2) Employment - The labor force of Ghana is about 40 percent of the total population or about 4 million people. This force has been growing faster than job opportunities, thereby increasing social pressures and unemployment. Unemployment and under-employment create a constant drain on the government's resources as well as a loss of potential output for the economy.

3) Education - At the present time the dependent child population (age 15 and under) is estimated at 45 percent of the population and it is estimated that 55 percent of this population has not or will not attend primary or secondary school. Per capita cost of providing such education has been rising and government resources cannot respond to the

demand in the foreseeable future especially with the "momentum" of population growth which will double the school-age population within the next 20-30 years.

4) Other Social Services - The government is attempting to increase percentage of coverage of the population by good quality social services. Specifically the government is seeking to expand health-related rural and urban water supply, sewage disposal facilities and improved housing as well as other aspects of environmental sanitation. It is obvious that if the nation's population growth exceeds the rate of growth of the various sectors of the economy (including health) desired improvement in the well-being of the nation cannot be achieved.

B. Danfa Project Background

1. Objectives

The steady growth in realization of the extent of the problem posed by various health/economic/demographic trends in Ghana led to a concern among Government of Ghana officials, government planners and the medical profession as to how the health system could best play its part in dealing with the simultaneous requirement for improved health and reduced fertility among the rural population in Ghana. If the health services were to play their part adequately, it seemed apparent that an improved understanding of the nature of the problem confronted both as regards its intensity and its social dimensions needed to be obtained. In addition, there appeared to be a clear need to evolve new approaches which would improve the effectiveness of the delivery of health and family planning services in rural Ghana to meet the following objectives:

- a. Service to a widely dispersed, low-income rural population where transport and communications are limited;
- b. Development of a health infrastructure which delivers meaningful health/family planning services where medical and even paramedical personnel are scarce;
- c. Development of systems that could hold down the demand for skilled personnel to levels which can be mobilized in Ghana while also keeping the costs within the resources of the Government of Ghana.

2. Organization:

During 1965 the matter was discussed at length in medical and other government circles and it was decided that field tests on a variety of health delivery patterns should be developed. The information provided would give Ghana's health development planners concerned with these problems a comprehensive set of findings which would shed significant light on the best means for achieving the objectives which were increasingly being defined in connection with Ghana's health and family planning policies.

The original research project was planned around a rural cocoa community at Asamankese in the Eastern Region about 60 miles away from Accra. It was planned that there would also be an urban counterpart of the project in the new industrial complex of Tema near Accra. A request for project assistance was made to UNDP in 1965. Although the project was acceptable to UNDP, other priorities at the time made the immediate funding by UNDP impossible.

Consequently the medical school decided to undertake the project on a smaller scale with internal resources. The Ghana Medical School, Department of Community Health, was charged with the responsibility of organizing the project. The criteria for selecting a new location for the project included the following:

- a) willingness of the community to collaborate and carry out self-help activities;
- b) nearness of the community to the University;
- c) typical rural characteristics such as rudimentary environmental health services and social amenities.

The community around the Danfa district was finally selected. Land was donated by the Chief and people of the village of Danfa. The medical school provided materials necessary for construction and the Department of Social Welfare and Community Development supervised the construction. By November 1969 construction was completed. The Ministry of Health was a primary supporter providing staff, drugs and supplies for the running of the health center. The clinic was officially opened in January 1970. Even before the formal opening, however, medical students were already conducting epidemiologic field surveys in the district.

3. Alternative Strategies:

There were obviously several strategies open to the Danfa Project Staff with regard to the specific approach to be adopted for the implementation of the project objectives. One such approach was to organize a service program as has been done in many places and to do the best possible to learn from field experiences. The other was to first

develop a detailed research base for all activities with the intention of monitoring and evaluating the effectiveness of various inputs. Following a review of experiences here in Ghana and in other developing countries, the latter approach was adopted. The reasons for the choice were as follows:

- a. Health services in the past have been organized as the need arose, influenced mainly by wants of the communities expressed by individuals with political and social leverage.
- b. Services have been mainly curative health services. Preventive health programs with adequate evaluation have been rare.
- c. The influence of the environment (physical and social) on the persistent heavy burden of preventable communicable diseases in these communities had never been adequately considered.
- d. There was a need for studying the most cost-effective method for delivery of health care suitable to rural population.

4. UCLA Participation:

In 1969 a new proposal for integrated health/family planning programs was presented to USAID. The proposal was accepted and UCLA was identified as the collaborating university. Initial obligations were made in FY 69 to finance a feasibility study for the project, and actual field operations began in August 1970. The agreed-upon proposal design dated May 1970 included as its terms of reference:

- a. To investigate the state of the rural community, its physical amenities, its social organizations, the factors that make for an effective participation in health problems and programs;

- b. To undertake research into the most useful and efficient means of utilizing available manpower and other resources in the operation of health post-centered comprehensive rural health services;
- c. To train doctors, sanitarians, midwives, community health nurses and other personnel, both separately and in teams, specifically in their role for rural health work;
- d. To provide manpower oriented and equipped to handle problems of the community.

During this early period there was increased concern in Ghana for family planning-related research. With pressures provided by the GOG's basic policy paper favoring a comprehensive attack on population problems and AID's interest in the matter, the project's emphasis turned to testing a series of hypotheses which stated that:

- a. Comprehensive health care as delivered by the Danfa project will reduce child and maternal mortality rates;
- b. Family planning services within a program of comprehensive health services and health education are more effective in reducing fertility rates than family planning services without those additional components;
- c. Family planning services coupled with health education are more effective in reducing fertility rates than family planning services provided without health education;

- d. Introduction of modern family planning services utilized by the Danfa project will result in a greater reduction of fertility rates than that elicited by the traditional family planning practices generally used by the population resident in the research area;
- e. A significant relationship exists between improved rural health and the reduction of fertility rates.

As noted in the previous section, the government has decided that it will in any case provide family planning services in the context of MCH services, therefore making the study of the hypotheses to a certain extent irrelevant.

C. Activities to Date:

During the five years of the Danfa program, project staff have worked in the field providing some health services, teaching health workers at various levels, but primarily focusing on the training staff and carrying out research in the area of rural health and family planning delivery.

(See Annex A for listing of individuals trained.)

As a result of the project activities over this period, information and data have now been accumulated and analysis is being done in the following areas:

1. Demographic characteristics of the rural population;
2. Morbidity and mortality rates;
3. Fertility rates;

4. Cost-effective approaches to the organization of specific health programs;
5. Principles of organization of effective rural health care system with particular reference to accessibility and acceptability to the consumer;
6. Attitudes of rural population to family planning and methods of providing effective family planning services to rural population;
7. The health status of the population in the project area as documented through the village health survey;
8. Information on community resources, including village volunteers, in the provision of family health services;
9. Functional analysis of staff of basic health services with particular reference to the health center staff.

As information on these broad topics is generated, it is being made available to the Ministry of Health and the GNFP on an ongoing basis. Annex B gives a listing of publications in print and in various stages of publication. Other data is being analyzed and will be provided in comprehensive reports over the period of the program. Table I below lists major activities to date.

TABLE I

ACTIVITIES TO DATE

<u>Target/Completion Date</u>	<u>Description of Activities</u>
6/70	1. Pre-project feasibility studies.
6/70	2. Project Agreement (GOG/UG/UCLA/USAID) signed.
8/70	3. UCLA team arrives.
12/71	4. Mappers recruited/trained. Houses in Areas I-IV mapped/numbered.
12/71	5. Pre-test of survey questionnaires.
Continuous	6. Field interviewers recruited/trained.
Continuous	7. Surveys
3/72	8. Family planning/health education teams recruited/trained in non-project areas.
Continuous	9. Family planning services Areas I, II and III.
6/73	10. Satellite clinics established in Area I.
	11. Identification registration of TBA's and KAP studies of TBA's.
12/73	12. Guinea worm survey.
12/73	13. Polio survey.
12/74	14. Introduction of Mass Immunization Program in Area I.
3/75	15. Project evaluation.
5/75	16. GOG/USAID/UCLA/AID-W review of evaluation findings.
12/75	17. GOG Danfa Project Policy Committee review of revised proposal.

2/ Does not include several rounds of surveys conducted between 1970-75. See Page 66 for listing of surveys in process.

D. Revised Project Time Frame and Funding Issues

The Danfa Rural Health and Family Planning original proposal dated May 1970 covers a span of obligation of FY 69 through FY 75. The proposed life-of-project financing requirements totaled \$2,174,627 plus Title ~~II~~ PL 480 Section 104(h) local currency funds in the amount of \$428,000. A PROP updating of Revision No. 2 was submitted to Washington in August/September 1974 and documented a previously-agreed upon time frame that would carry the project through FY 79 and dollar costs in the amount of \$6,000,000, not including local currency costs previously provided under 104(h) funds. This updating of the original project design also documented other changes that had been agreed upon by AID/W in contract negotiations since the Danfa project began its field operations in 1970.

Major changes that occurred over the period through 1975 were:

1. The perception of the time frame;
2. The addition of personnel;
3. The addition of equipment;
4. Cost of participant training;
5. Requirements for other supply and equipment needs.

All of these elements contributed to the escalated costs over the original projections. These changes plus the high rate of inflation over the last years have resulted in an increase in the current estimated total project costs to \$6.4 million for a 8.5 year project compared with a \$2.2 million cost given in May 1970 for a six-year program. The eight (plus) years of field work now projected is a result of the longer period required to start

up the project and to complete the initial baseline studies in 1971-72. The belief that the studies could begin so quickly was based on a number of misconceptions, specifically:

1. availability of trained Ghanaian personnel;
2. availability of maps of project area;
3. time required for supplies and equipment to arrive at the site;
4. time required to develop and field test research instruments.

Increase in personnel costs are responsible for the largest portion of the cost increase. Two additional UCLA field personnel have been added to the four original UCLA positions provided. Also during the period inflationary escalation of personnel benefits and allowances has served to increase personnel costs. The original proposal projected a requirement for only four backstopping positions at UCLA. In FY 1975 the UCLA backstopping requirements (academic and non-academic) peaked at seven full-time and seven part-time personnel or about 120 mm. (This backstopping requirement is being phased down during the remainder of the project.)

Estimated equipment expenditures have increased by approximately \$264,000 during the period of the contract. Transport costs have become a major factor in this increase with five additional vehicles being provided. Another major item that was not contemplated in the original PROP was the need for additional computer equipment in Ghana which has added to the analytical capability of the Ghana Medical School and the University in general.

Participant training has also become a major cost item. Estimated costs in 1970 were projected at \$80,000. In 1974 the costs had escalated to \$221,000 or \$141,000 more than the original estimate. In this proposal

an additional \$120,000 is recommended to provide training for ten individuals, i.e., 6 degree and 4 non-degree programs over the next three years of the program (see page 65 for details).

E. Evaluation of the Danfa Project

By the end of 1974 and early in 1975 Ghanaian and UCLA field staff expressed concern with the stringent constraints of the research design and the requirement to adhere to the original concepts connected with the family planning hypotheses testing which no longer seemed critical, given the expressed government position that family planning will be part of basic health services. In March 1975, USAID and the Government of Ghana agreed to an evaluation of the program by an independent task force from Washington with Ghanaian participation.

1. "Overall Assessment and Recommendations: 3/

1. The Danfa Project has produced, and should continue to produce, real and substantial short-term and long-term benefits to Ghana for the development of more effective health and family planning services to its rural population. The Evaluation Team strongly recommends continuation of the project to its proposed termination in March 1979 but with modification in its objectives and activities.
2. The objectives of the project and their order of priority should be changed to the following, and project activities should clearly reflect these objectives:

3/ An Evaluation of the Danfa Comprehensive Rural Health and Family Planning Project in Ghana, American Public Health Association, Washington, D.C., March 15-27, 1975. Chapter 5, Page 36.

- a. Training
- b. Operational Research in Health and Family Planning
- c. Epidemiological Investigations
- d. Institutional Development

The omission of "Test of Basic Hypotheses" as a Project Objective reflects Evaluation Team judgment that, as a result of a deliberate experiment, it is unlikely that fertility changes can be demonstrated to result from the four service modalities assigned to the four Project Areas. Furthermore, the constraints imposed by the experimental design interfere with and inhibit the full implementation of training, operations research and epidemiological investigations, and the efforts expended in extensive and expensive surveys and analyses can be better spent in more immediately productive activities. Finally, all of the urgent studies in family planning services delivery can be subsumed under 'Operational Research.'

3. Project activities which can best achieve the objectives given above are broadly believed as follows:
 - a. De-emphasize the new collection of demographic, vital records and survey data and emphasize the thoughtful evaluation and analysis of already available data.
 - b. Continue the assessment of clinical, preventive, health education and family planning service trials, including study of their relative costs, and vigorously explore and assess additional service innovations.

- c. Disseminate the findings of operational and epidemiological investigations much more rapidly to interested persons and organizations, perhaps by such means as a monthly or quarterly bulletin.
 - d. Explore ways in which the various survey instruments in use, and the experience gained with them, can be adapted for the use of health and family planning services in other parts of Ghana.
 - e. Expand the study of the epidemiological characteristics of significant health problems in Ghana, and the investigation of the effectiveness of disease-preventive materials and procedures.
 - f. Expand the use of the Danfa Project as a training field site for medical students, nursing students, and paramedical personnel of all types.
 - g. Produce a new schedule of projected activities and expected products.
4. Current project support by AID, Government of Ghana, UCLA, and GMS should continue, with the following changes:
- a. There should be increased involvement of senior Ghanaian staff in the initiation and direction of project activities. This can occur only if additional senior Ghanaian staff can be made available to the project.
 - b. Consider the feasibility of increasing the number of Ghanaians to be sent to the United States for appropriate types of training.
 - c. Explore reductions in U.S.-based UCLA personnel and activities.

5. In light of all of the above, UCLA, GMS and USAID/G should reconsider the overall balance of field activities in Ghana and analyses in Ghana and at UCLA. With a shift to more rapidly productive operational research, the present plan to conduct terminal analyses during all of the FY 1978 and FY 1979 could be reduced to perhaps one year, and the year saved replaced by equivalent extension of field projects."

3. GOG Response to Evaluation Report:

The University of Ghana Medical School (GMS) and officials of the government including the Ministry of Economic Planning, Ministry of Health, ISSER reviewed the evaluation report in several meetings and basically concurred with the recommendations, i.e., training, operational research, epidemiological investigations and institutional development are priorities to be addressed. The GOG review committee also agreed that the Ghana Medical School, Department of Community Health should assume greater responsibility for the project's management and support -- this would require additional Ghanaian staffing and specialized training -- allowing for an accelerated phase-out of UCLA project personnel.

In subsequent joint GMS/UCLA Danfa meetings, the project's revised framework (goal-purpose-outputs-activities) were developed to incorporate the recommendations and develop the process for accomplishment of short-term objectives and for long-term continuous initiation and direction of operational research, analysis of data and training of health and family planning personnel by the GMS.

3. UCLA Comments on Evaluation Report:

The UCLA project staff generally agree with the overall assessments and recommendations made by the evaluation team. There are a few points of differences of opinion or emphasis which should be stated:

- a) With reference to the statement that "as a result of a deliberate experiment it is unlikely that fertility changes can be demonstrated to result from the four service modalities assigned to the four project areas...", the project staff feels a modification in the sense of this statement is required. It is felt that fertility changes can be demonstrated by use of intermediate indicators such as contraceptive prevalence, birth intervals, and continuation rates.
- b) It is felt that while a de-emphasis of new collection of demographic, vital events and survey data is feasible, they cannot be eliminated entirely. Much depends upon the analysis of the data from the second round of village health and longitudinal surveys and the comparison of these data with that of round one. Thus the emphasis on "the thoughtful evaluation and analysis of already available data" as stated by the evaluators is most important.
- c) In regard to the recommendations given that the project should "explore reductions in U.S.-based UCLA personnel and activities," UCLA proposes that as the UCLA Ghana-based staff are phased out and as important data becomes available for analysis, support will continue to be required at UCLA itself, both in data analysis and in assistance in preparing numerous technical papers and the final project reports.

3. USAID Comment:

USAID agrees in principle with the evaluation report and has strong interest in the continuation of Danfa research activities, especially since other USAID-supported health and family planning programs are now becoming operational and require the added information and experience of operational research conducted under the Danfa project. The omission of "test of Basic Hypothesis" is correct and will serve to release resources into more current needs. USAID's concern is that the research structure including analysis should keep within parameters which are consistent with development requirements of the Ghanaian health and family planning sector. The implementation plan described in Part IV, Implementation Planning, attempts to give the project this direction.

Additional USAID Comment dated May 19, 1976:

USAID/GMS are convinced that the first level analysis of Danfa data as described below is important and essential for GOG policy choices regarding health and family planning and will have significant impact on alternative interventions in national programs. In addition, factors of immediate concern regarding assumptions and relationships of inputs to outputs cannot be substantiated on fragmented, uncoordinated empirical evidence to date; therefore parallel processes of operational research and data analysis cannot be separated. The complex research including analysis will provide a framework for efficient allocation of resources and insights into core issues underlying efficient health and family planning services.

First Level Priority Output Data from Research/Analysis:

- (A) Factors that influence the utilization of general health services and acceptance of family planning services.

Data to be analyzed are those from the records of Danfa Rural Health Center and the Obom Health Post, the family planning team field records, the family planning follow-up surveys, the health education team field records, the special evaluation surveys of the immunization and anti-malaria campaigns, the maternal and child health longitudinal surveys, the family planning KAP longitudinal survey, and the morbidity and socioeconomic instruments of the longitudinal survey.

- (B) Factors that play a role in continuation in a family planning program.

Data to be analyzed are from the longitudinal FP KAP, the family planning filed records, the family planning follow-up surveys, and the longitudinal fertility history.

(C) Factors that determine the impact of a health and FP service.

Data to be analyzed are from the records of the Danfa Rural Health Center and the Obom Health Post, the village health surveys, the health education team field records, the health related behavior surveys, the fertility survey, the socioeconomic survey, the family planning follow-up surveys, and demographic cross-sectional surveys.

(D) Determination of points of leverage in attempting to influence rural people with regard to health and family planning practices.

Data to be analyzed are from nearly all sources at our disposal.

NOTE: Taken as a whole, the analysis required for the work above essentially constitutes a systems analytic approach to investigation of the health care and family planning system in the several modes organized by the project, i.e., a delineation of system elements (users, providers, physical facilities, fiscal resources) and the inter-actions of these elements in the context of different levels of exogenous variables, (e.g., changing educational levels, socio-economic development, government policy). Analysis of the system leads to the answer to the next question at the first priority level.

(E) Determination/selection of requisite staff skills, training and development staff, and structure of action programs so as to maximize benefit/cost ratio of health and family planning service programs within a range of cost feasible for Ghana in the near future.

In summary, as noted in PP and early project rationale, the direction of health/population policy and effective means for service distribution are stymied by dearth of applied research and accurate data analysis based on experience from which to draw guidance. The significance of operational research/data analysis cannot be judged separately. The Mission believes that despite uncertainties, the projected total and mix of resources are most appropriate under the circumstances.

The complex nature of the project focusing on four interdependent objectives (Project Purposes I-IV) does not allow complete separation into distinct elements of data analysis and operation research; therefore the determination of exact requirements to achieve project purposes is not possible. The UCLA-based academic budget appears reasonable since it is obvious that data analysis tasks will progressively increase in FY 77 - 78 therefore progressively greater U.S. and Ghanaian worker months are devoted to analysis.

(A) The estimated UCLA-based academic staff directly focused at analysis during FY 1977-79 are:

- (1) Design and data analyst specialist, 9 WM;
- (2) Systems analysts, 19 WM.

(B) Other UCLA-based U.S. academic staff involved in at least 50 percent of time in data analysis during FY 1977-79 are:

- (1) Co-director and deputy co-director, 12 WM;
- (2) WL chief of party, other part time academic consultants (including former field staff), 14 WM.

For total academic staff time devoted to analysis, 54 worker months during FY 77-79. Balance of 46 worker months focused at operational research, manual writing, report writing, etc.

(C) In addition, an estimated 22 worker months of UCLA-based Ghanaian academic staff are involved in both data analysis and report writing, not including inputs from Ghanaian participants at UCLA.

(D) FYI. Most first level priority analysis cannot be completed with computer capacity in Ghana. USAID has pressed UCLA experts to insure maximum use of Ghanaian resources/computer capacity. GMS accepts the fact that answers to questions asking "why an effect" are outside of the internal capacity of Ghana computers, in contrast to analytical questions asking "what happened".

The PP does not provide for all desirable UCLA-based data analysis and publications of second and third priority analysis of worldwide interest. This must be considered in a separate project. UCLA/GMS are open to all support possibilities including DIEDS project. This is left to further discussion/analysis following additional experiences from first priority analysis.

(A) The second level priority analysis would include:

- (1) Statistics on morbidity, mortality, birth rates, fertility and population growth in project area;
- (2) Data on original set of hypotheses concerning relative cost effectiveness of different settings for family planning programs.

Other important second and third level questions likely to emerge as an outgrowth of first level analysis include:

- (1) Causes of population migration;
- (2) Socio-demographics and economic implications of changing population composition in rural and semi-urban areas.

PART III

DETAILED DESCRIPTION AND PROJECT ANALYSIS

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PART III

DETAILED DESCRIPTION AND PROJECT ANALYSIS

A. Project Description - Logical Framework

1. Sector Goal:

ENABLE THE GOVERNMENT OF GHANA TO EXTEND AND IMPROVE
RURAL HEALTH AND FAMILY PLANNING SERVICES IN A RATIONAL
MANNER

Measurements of Goal Achievement:

Various process measurements are being experimented with to evaluate the progress of field programs. Examples of these process measurements are proportion of population reached by health care and family planning services, change in health-related behavior, level of community involvement in planning for health and family planning services, service component cost-effectiveness, and family planning acceptance and continuation rates. Desirable changes in the values of these process measurements are assumed to lead in the long run, or to be strongly indicative of a trend toward, the desired ultimate outcomes of reduced morbidity, mortality and fertility levels in the population.

- a) Reduction of infant, maternal and childhood mortality by at least 10 percent by 1980;
- b) Acceptance of family planning by 30 percent of fertile females.

2. Project Purposes:

- I. INVESTIGATION OF THE STATE OF THE RURAL GHANAIAN COMMUNITY, CONCENTRATING ON FACTORS ASSOCIATED WITH HEALTH AND FAMILY PLANNING BEHAVIOR;

- II. STRENGTHENING OF THE INSTITUTIONAL CAPABILITY AT THE GHANA MEDICAL SCHOOL TO CONDUCT RESEARCH AND TRAIN DOCTORS AND OTHER HEALTH WORKERS IN THE DELIVERY OF HEALTH AND OTHER FAMILY PLANNING SERVICES;
- III. DEMONSTRATION OF SEVERAL COST-EFFECTIVE HEALTH CARE SYSTEM MODELS TO INCLUDE FAMILY PLANNING AS AN INTEGRATED COMPONENT SUITABLE TO THE GHANAIAN CONTEXT;
- IV. TRANSFER OF INFORMATION DERIVED FROM PROJECT ACTIVITIES TO RELEVANT GOVERNMENT OF GHANA AGENCIES ON AN ONGOING BASIS.

End of Project Status:

- 1. Institutionalized health/family planning research and analysis process for forward continuous planning and implementation of integrated rural health delivery programs.
- 2. A rural-oriented teaching and training institution linked to ongoing operational programs in health, family planning and nutrition.
- 3. Institutionalized system of communication/interaction between the Ghana Medical School and the Ministry of Health and National Family Planning Program to facilitate the translation of Medical School research results into operational action.
- 4. Institutional relationship and interaction between UCLA/GMS in such areas as training, research, analysis, evaluation, etc.

3. Project Outputs and Activities:

Each project purpose has been divided into a set of outputs that must be met and each set of outputs is in turn further divided into a set of activities to be completed. The activities are given below in outline form.

PURPOSE I: INVESTIGATION OF THE STATE OF A RURAL GHANAIAN COMMUNITY.

Activities related to - Definition of health and health-related characteristics for planning and evaluation:

(Output I-A)

- Determine:
1. Demographic characteristics of population by census and other methods;
 2. Prevalence of selected diseases by means of health assessment surveys;
 3. Incidence of selected health problems by surveillance methods.

Activities related to - Identification of characteristics and determinants of health and family planning-related behavior:

(Output I-B)

1. Analyze health center and health post records.
2. Study community participation in various health care programs, especially preventive and promotive programs.
3. Conduct specific knowledge/attitude/practice surveys in health, family planning and socio-economic areas.

Activities related to - Examination of the physical and social environment and identification of the relationship of these factors to health and health-related behavior: (Output I-C)

1. Conduct longitudinal surveys of the physical environment at both village and household levels.
2. Determine social factors bearing on health-related behavior.

PURPOSE II: STRENGTHENING OF INSTITUTIONAL CAPABILITY TO CONDUCT RESEARCH AND TRAIN HEALTH PERSONNEL.

Activities related to - Medical students and doctors trained on special problems of delivery of rural health care and family planning: (Output II-A)

1. Lectures, films, field visits.
2. Field exposure in the Danfa area/district.

Activities related to - Doctors trained in management of a rural health district: (Output II-B)

1. Classroom lectures, films, field visits.
2. Field exposure in Danfa area/district.
3. Seminars in cooperation with MOH Management of Rural Health Services project.

Activities related to - Strategies developed for training of professionals, para-professionals, traditional and voluntary health workers in rural Ghana: (Output II-C)

1. Functional analysis of tasks required to form a comprehensive program of rural health care.
2. Development of job descriptions to fit requirements of rural health care program.
3. Design of curricula and special training material (including evaluation and revision).

Activities related to - In-service training for health workers from outside Danfa area: (Output II-D)

1. Use of staff as trainers of trainers.
2. Participation in national in-service training programs.

Activities related to - Trained specialists in fields of competence required to develop the full range of capabilities needed in the long range teaching/research program of the Department of Community Health: (Output II-E)

1. Select personnel for specialized training in public health.
2. Select appropriate training sites, develop schedule of training and establish cooperation between institutions.

PURPOSE III: DEMONSTRATION OF SEVERAL COST-EFFECTIVE HEALTH CARE SYSTEMS TO INCLUDE FAMILY PLANNING.

Activities related to - Systems for increased accessibility and acceptability of services: (Output III-A)

1. Experiment with and evaluate new methods for expansion of family planning services.
2. Continue evolution and evaluation of the satellite clinic concept.
3. Continue development and evaluation of community-based and mass approaches to delivery of preventable health services.
4. Experiment with and evaluate extended services through volunteers and traditional health workers.

Activities related to - Methods of increased community participation in the health care system: (Output III-B)

1. Experiment with programs of community education including design, implementation and evaluation of various approaches to the community.
2. Involvement of the community both in planning and implementing health care programs.
3. Identify and involve other members of the traditional health system apart from TBA's.

Activities related to - Increased effectiveness of human, physical and financial resources: (Output III-C)

1. Analyze costs to assure services do not exceed availabilities and compare cost effectiveness of alternative approaches.
2. Functional analysis of services, sub-systems and components.
3. Standardize and simplify patient management procedures including drug regimens.
4. Innovative use of health personnel by means of task analysis,

development of job descriptions, simplified operational manuals and in-service training.

Activities related to - Systems that improve quality of care: (Output III-D)

1. Establish feasible minimum standards of preventive and curative care for major health problems.
2. Establish improved management methods (including functional job descriptions and operational manuals).

Activities related to - Systems that improve environmental sanitation:
(Output III-E)

1. Explore means for improvement of rural water supply.
2. Demonstrate improved methods of village refuse and excreta disposal.
3. Demonstrate self-help methods of vector control feasible for rural villages.

PURPOSE IV: TRANSFER OF INFORMATION DERIVED FROM PROJECT ACTIVITIES TO RELEVANT GOVERNMENT OF GHANA'S AGENCIES ON AN ONGOING BASIS.

Activities related to - Coordinated research and applied programs with systematic flow and feedback of information
(Output IV-A)

1. Maintain formal links with Ministry of Health and National Family Planning Program at all levels.
2. Conduct workshops with specialized personnel of operating agencies.
3. Establish priority of studies and resource requirements..

Activities related to - Established Danfa Project Information Unit responsible for writing, editing and distribution of research papers and monographs within Ghana
(Output IV-B)

1. Train writing and editing staff.
2. Organize printing operation and procedures.
3. Organize distribution.

Activities related to - Production of monographs, professional articles, book chapters, operational planning guides, technical reports, etc., relating to Danfa Project experience: (Output IV-C)

1. Prepare guidelines for publication and report writing.
2. Train/orient research staff in reduction, analysis, interpretation of data and preparation of draft materials for writing and editing staff.

Verifiable Indicators:

1. Sample profile of health and health-related factors in Ghana.
2. Manuals of operating procedures describing components of alternative and replicable service models for delivery of decentralized, generalized rural health services including family planning.
3. Improved low-cost systems and procedures drawn from Danfa research emphasized in MOH long-range plans.
4. Department of Community Health fully staffed and trained and capable of providing operating agencies research information and procedures plus train personnel for community health service.

4. Project Inputs: (See Annex C for detailed cost Expenditures (\$000)

	<u>FY 76</u>	<u>I.Q.</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>
	\$ (WM)	\$ (WM)	\$ (WM)	\$ (WM)	\$ (WM)
I. U.S. Inputs					
A. <u>Personnel</u>					
1) <u>Salaries of UCLA</u>					
Personnel at UCLA	128(108)	44(27)	140(88)	244(102)	127(36)
2) <u>Salaries of UCLA</u>					
Personnel in Ghana	161(62)	34(11)	117(34)	15(2)	-
3) <u>Local Hire in Ghana</u>	<u>6(-)</u>	<u>2(-)</u>	<u>7(-)</u>	<u>1(-)</u>	<u>1</u>
Sub-Total	296(170)	80(38)	264(122)	260(104)	128(36)
4) <u>Personnel Allowances/ Fringe Benefits</u>	<u>135</u>	<u>29</u>	<u>110</u>	<u>50</u>	<u>21</u>
Total Personnel	430	110	374	310	149
B. <u>Equipment/Supplies</u>					
	59	-	41	24	1
C. <u>Travel/household storage and removal expense</u>					
	49	5	55	47	53
D. <u>Local Currency Costs</u> Travel, gas, equipt. maintenance, etc.					
	56	15	95*	85*	25*
E. <u>Other Direct Project Costs</u>					
	109	34	92	123	76
F. <u>Participant Training</u>					
	30(36)	8(12)	20(28)	50(53)	50(53)
G. <u>Indirect Costs</u>					
	<u>143</u>	<u>34</u>	<u>125</u>	<u>111</u>	<u>49</u>
TOTAL U.S. BUDGET	877	205	801	665	377
FY 76-79	Cumulative Total			3,035	
FY 70-75	Direct Project Costs			,097	
FY 71-75	PL-480 Title 1 104(h) Local Currency			,467	
FY 70-75	Contract Expenditures			<u>2,788</u> <u>3,352</u>	
	Total U.S. Costs			\$6,387	

*University of Ghana administered.

II. <u>GOG Inputs*</u>	<u>75/76</u>	<u>76/77</u>	<u>77/78</u>	<u>78/79</u>	Total
1) Staff budget, Dept. of Community Health	ø 125	ø 130	ø 140	ø 150	
2) Reoccurring Danfa operational budget	289	300	310	350	
3) Maintenance and transport	<u>78</u>	<u>83</u>	<u>89</u>	<u>64</u>	
Total Budget	ø 492 (\$428)	ø 513 (\$446)	ø 539 (\$469)	ø 464 (\$403)	ø2.008 (\$1.746)
		Prior years			(0.765) (\$2.511)
III. <u>Other Donor Inputs</u> (UNICEF)					
In-service Training (Est.)	-	\$ 50	\$ 75	\$ 100	
Commodity Support (Est.)	<u>-</u>	<u>25</u>	<u>25</u>	<u>25</u>	
	-	\$ 75	\$ 100	\$ 125	\$ 300

* Does not include such items as staff salaries for personnel seconded from MOH, PPAG, GNFPF, etc.

5. Important Assumptions as Related to Goal Purpose - Outputs
- a. The GOG will assign high priority to improving health services in rural areas and is prepared to allocate the necessary resources and skilled manpower to attain that end.
 - b. Experience and data from the Danfa project will provide sufficient flexibility to test a wide range of alternative interventions and is applicable to other parts of Ghana, therefore can be used as a basis for decision making in the areas of health and family planning.
 - c. Improved rural health will result in greater acceptance of family planning.
 - d. The MOH, NFPP and other agencies will assist and support the testing/demonstration activities under the project.

Means of Verification:

- A. Goal - Government statistics, special surveys and specials surveys and studies.

- B.1. Purpose I - analysis of health center records; KAP and Socio-Economic surveys, special studies of participation in other health programs; determination of demographic characteristics of population by means of census and other methods: Determination of prevalence of selected health problems by surveillance systems.

- B.2. Purpose II - task analysis; review of job descriptions, curriculum, training materials (including manuals): Participation in testing/demonstration of interventions; review of in-service training for operational agencies.

- B.3. Purpose III - Cost and functional analysis information; analysis of tasks, job descriptions, in-service training; standardization of patient management procedures and drug usage; Review and testing of community programs including volunteer and TBA systems; Review and testing of mobile/satellite system; procedural manuals on:

- a. Maximizing accessibility of services;
 - b. Optimizing participation in health care system;
 - c. Maximizing effective use (including training) of human, physical and financial resources,
 - d. Improved quality of care, and
 - e. Improved environmental sanitation; participation in testing/demonstration of interventions.
- B.4. Purpose IV - discussions with operation agencies; Review of workshops, seminars, in-service training, procedural manuals, newsletters, other publications.
- C. Output - as described in activities under each output in PP, otherwise similar to means of verification project purposes I-IV.
- D. Inputs - project records and reports.

B. Project Analysis:

1. Technical Analysis

A major consideration in each of the demonstrated models will be efficient use of available GOG resources. The plan of action for implementation of Danfa findings will require active participation by the operating agencies, especially the Ministry of Health.

Much of the success of the program is therefore dependent on the training provided for the various participating agency personnel regarding health and family planning approaches developed at Danfa. The program as now structured should develop a permanent capability for practical training of all levels of health personnel, including auxiliaries, community health nurses, family planning field workers and village volunteers.

There is evidence from the Danfa research and other programs that with improved planning and management, lower cost service can be obtained and outreach can be multiplied. The curricula and design of management training programs will be planned in collaboration with other ongoing MOH/GNFPP programs. In this connection, management training for MOH staff is being carried out by the MOH's Management of Rural Health Services Project and will provide one aspect of support essential to Danfa project efforts in improving the management of rural health systems,

There appears to be a latent demand for family planning services by the female population which can perhaps be made into an overt demand by overcoming some of the hesitation occasioned by family, community and peer group influence. Continued research data should provide information

on the population's knowledge, attitudes and practice in regard to family planning acceptance and on measures which can be taken to overcome reluctance to use of family planning services.

Evaluation schemes are planned to review all aspects of programs, including the activities of the participating agencies as they affect Danfa Project activities. As an indicator of its importance, specific funding for evaluation will be provided within the GOG project budget. Evaluation of new innovative activities related to community self help and community aides will be a primary focus. The use of paramedical personnel, field workers and village volunteers is one approach that has already been tested to a limited degree and it is felt that it may present a practical solution to the need for personnel providing health services in the smaller communities. This will significantly expand the effectiveness and responsibilities of the paramedical groups. Also, training and institutional development aspects of the program must be continually evaluated since these affect capability of the health and family planning research process.

As the new program develops, it should be able to expand its ability to provide training in cooperation with staff of the Management of Rural Health Services Project to key regional and district personnel in the formulation and implementation of improved health and family planning delivery systems.

2. Policy Analysis:

The Government of Ghana continues its efforts to improve the well-being of the people through development activities in the context of

self reliance. The Guidelines for the Five-Year Development Plan (1975 through 1980) issued in January 1975 state that:

"The health of the people of this country is one of the primary requirements for economic and social development. It is therefore important that adequate emphasis should be placed on the strengthening and development of the health services."

"The main objective of government health policy will be to tackle health problems with a view of providing the most effective form of health care delivery systems which our limited manpower and financial resources will permit and to distribute the health services as widely as possible among people and regions."

Rural Orientation:

The Danfa Rural Health and Family Planning Project, as its full name makes clear, is targeted to benefit the rural sector of Ghana. Several aspects of the government's Guidelines deserve particular attention:

"a) The principle to be followed is that of providing basic health services to the greatest number rather than highly sophisticated services for a few;

b) Emphasis will be placed on the provision of basic health services, that is the provision of health centers, health posts, clinics and mobile health units;

c) Training institutions will be improved and expanded and training programs will be reappraised and redesigned to suit the health needs of the country. Serious attention will be directed toward the training of medical and paramedical auxiliaries;

d) As a part of the basic health services, environmental health nutrition education, community and school health education, communicable disease control, maternal and child health services and family planning will be emphasized."

e) The government will encourage and promote research into the control of diseases and environmental health and the delivery of health services.

The Danfa project's basic goals and purposes correspond well to these national health priorities. With regard to family planning, the Government of Ghana officially recognized the health, social and economic implications arising from the high population growth in its White Paper of 1969 entitled, "Population Planning for National Progress and Prosperity, Ghana Population Policy." Although there have been several changes of government since that time, the policy of controlling rapid growth by means of a national program of family planning has been firmly supported by each succeeding government.

The high birth rate has been emphasized as a health problem in the Five-Year Development Plan Guidelines. Although the National Family Planning Program originated as a free standing service program not directly linked with the National Health Service system, it is generally acknowledged by those associated with both programs that the health sector has major responsibility for the service aspects of the program, and that its

personnel in hospitals, health centers and health posts must provide family planning education and services. The "White Paper" clearly states that, "A population program would require close linkage with the National Health Program."

Integrated Health/Family Planning:

It was recognized that the health problem of high birth rates and the social/economic problem of rapid population growth are two sides of the same coin and that their joint solution might be better approached by means of an integrated program where this is possible. The Danfa approach takes this form but also recognizes for the near term that there may be areas where a tightly integrated approach may not be feasible and where a somewhat more independent family planning program may be the only means for bringing such services to a particular rural area. For example, in some areas of Ghana, operational support provided by commercial outlets is the only available method for promotion and distribution of contraceptives.

3. Social Analysis:

The importance and the value of improved health care and of integrated rural health/family planning programs with respect to the quality of life is a theme that is becoming more and more acceptable. The intended recipients of this project--the rural population--have been the primary victims of the country's maldistribution of health personnel and health resources. The project's thrust of improving health skills and providing efficient service delivery systems will therefore have long-term benefits on family welfare in rural areas.

It may be seen from the government's policy statements on population and health that the Government of Ghana considers the allocation of resources in the field of health and family planning services not only as basic welfare health measures, but also as an economic and social investment.

A related cultural/social resource important to community outreach and carefully considered in project research is the Ghanaian traditional system of community self help where every able member of the community is expected to contribute resources in cash or in kind to carry out projects of benefit to the community as a whole. The Danfa Project approach has been able to "tap" this resource to the communities' benefit and activities introduced are accepted by community leaders.

The experience of the past five years in Danfa has shown that the approach and services provided by the project are socially acceptable in that the communities actively participate. Community leaders openly discuss, accept and promote improvements in community well being including health and family planning. In fact, the project's experience is that there has been little overt opposition to what might have been its most controversial component--family planning. However, the desire for large families still acts as a constraint on wide acceptance of family planning.

There will be a continual need for additional research and information and understanding of key variables in regard to family planning as perceived by the rural population. The ultimate objective is to gain the confidence of the rural population, to understand their true concerns and the problems which they consider important, and provide the services in a manner which they consider acceptable.

PART IV

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PART IV

IMPLEMENTATION PLANNING

A. Administrative Arrangements:

1. Administration/Responsibilities

This project will be administered by a joint arrangement between the University of Ghana Medical School, Department of Community Health, and the University of California at Los Angeles, School of Public Health. The University of Ghana, through the Ghanaian co-director, is responsible for technical direction of all activities in the country including those undertaken by UCLA personnel who work on the project, in addition to supervision of GOG staff either temporarily employed for the duration of the project, full time members of the Department, or personnel seconded from other agencies to the Danfa project.

The University of Ghana provides matching and complementary staff personnel to the UCLA staff with a view toward carrying on research as the UCLA staff are phased out. Emphasis is placed on strengthening the framework of research and training for internal expansion and improvement of research capabilities and training capacity. Ghanaian personnel of the requisite background are being trained either locally or abroad to carry out the research programs.

The Ghana Medical School will be ready to assume responsibility for the stores and other supplies as well as the budget and other administrative functions concerned with the project that had hitherto been UCLA responsibility. The Medical School will have secure storage space by April 1, 1976 and would be ready to take the stores presently in UCLA hand, and any future stores that might arrive. These stores will be under the supervision of the Medical School who will appoint a storekeeper.

The Medical School will also appoint a person to be in charge of vehicle maintenance. Already vehicle allocation and routing are being carried out by ³Ghanaian. The Medical School will also take over all the other functions except those related to UCLA personnel and support by the beginning of U.S. Fiscal year 1977. (October 1976)

2. UCLA Phase Out

A revised phase-out schedule for UCLA field staff has been developed advancing the original plan by some 18 months for two advisors. This

phase-out schedule has been considered against present DCH (Department of Community Health) staff and proposed training. It appears that the necessary trained staff can fully absorb the activities of the UCLA team. However, this depends upon the return each year, beginning in 1975, of two public health trainees who are seconded to the Ghana Medical School, Department of Community Health, by the Ministry of Health. The staff being phased out will participate in the project as part-time consultants/full-time specialists involved in the analysis of the data collected and preparation of reports at UCLA or Accra.

<u>Date</u>	<u>Field Advisors (Ghana)</u>	<u>Comment</u>
July 1975	Health Educator/Anthropologist	Completed (UCLA consultant July 75-July 77)
July 1976	Epidemiologist	As originally planned (UCLA staff July 76-July 77)
July 1977	MCH/FP Advisor	As originally planned (UCLA consultant July 77-Feb. 79)
July 1977	Health Systems Analyst advanced to July or August 1977	Originally scheduled for June 1978 (UCLA staff July 77-Feb. 79)
Jan. 1978	Chief of Party	Originally scheduled for Feb. 1979 (UCLA staff Jan. 78 Feb. 79)
Jan. 1978	Administrative Assistant	Phase-out in Ghana Dec. 76

3. USAID Monitoring Role

AID is supporting the Danfa Project through an Institutional Development Agreement (IDA) with UCLA. USAID has confidence in the contractor's ability to carry out successfully the revised program of research, institutionalization and training. USAID is pleased with the progress to date, considering

the early problems encountered, and believes that the new direction will have positive impact on the total health/family planning system.

USAID monitoring of project activities will be continuous but within the spirit of the IDA arrangement which gives primary responsibility for project implementation, reporting and evaluation to the participating universities, i.e., UCLA and University of Ghana Medical School.

4. Linkages to Operating Agencies:

The project coordinates its activities with the Ministry of Health, the Ministry of Economic Planning (National Family Planning Program), and other institutions in Ghana in fields related to Family Planning and Rural Health. Formal and informal links are being strengthened with the appropriate personnel in these agencies through secondment of staff to the project, in-service training, and through joint field work and seminars.

The newly established Danfa Project Policy Advisory Committee of the project consists of the Director of Medical Services, the Executive Director of the National Family Planning Program, and senior representatives of the relevant agencies, including USAID/Ghana. The Committee will meet at least twice a year and critically review the progress of the project and also help to formulate policies to guide the project.

B. Implementation Plan

1. Surveys and Analysis:

Certain activities planned in the early phase must be continued in order to accomplish project purposes, even if carried out in a somewhat

reduced or more restricted form, for example: (1) the household census (population) resurvey shown in the following schedule will not be carried out in early 1976 as originally planned. However, a last resurvey should begin in September or October 1976, to be completed by January or February 1977; (2) the vital events registration must be a continued activity through the end of the project.

A modified final Village Health Survey and Longitudinal Survey will be conducted. The extent of the surveys will depend very much upon the results of analysis of the second round of these surveys. These data are now going through the final stages of processing to be followed by analysis. These surveys can be conducted on a considerably reduced scale as compared to the previous two rounds since the project will be focusing its attention on only certain specific items. The last round of the Village Health Survey will be carried out in February and March 1977 and the last Longitudinal Survey in January to May 1977.

As noted, the analysis of data from the second round will influence the detail and survey resources required to carry out the last major rounds of surveys. Much of the basic data analysis will be completed in Accra at the University of Ghana. The extent of this analysis is limited by the capacity of the University's computer. As the analysis becomes more complicated (for example, analysis of behavior patterns - "whys") the Danfa Project will take advantage of the modern computer center at UCLA. These facilities are available to Ghanaian staff and travel funds are being made available for intensive periods of analysis at the UCLA computer center.

GOG/UCLA/USAID will review carefully the nature of analysis to be conducted to insure that University of Ghana facilities and personnel are utilized to the maximum extent, thus adding to the institutional research and analysis capability.

UGMS/UCLA have agreed and USAID concurs that the allocation of analysis tasks between the University of Ghana and UCLA will follow the following principals:

"Analysis of data will continue to be carried out jointly by UCLA and UGMS staff connected with the Project. While this work will go forward simultaneously in Ghana and at UCLA, analyses undertaken in either location will be, to the maximum extent feasible, the product of thinking in both places. Work at UCLA will consist for the most part of analyses requiring use of large data files and complex multivariate techniques which demand a large computer. Assignment of data for review and analysis will continue to be made by members of the joint staff on the basis of individual areas of interest and expertise within the overall framework stipulated by the Danfa Rural Health and Family Planning proposal (PP).

To assure a high degree of collaboration after the UCLA staff departs from Ghana, contract funding has been provided in the last year to accommodate travel by both

Ghanaian and UCLA staff for the purpose of interaction on data analysis and interpretation. Further, advantage will be taken of the presence of Ghanaian participant trainees at UCLA who will also be involved with data analysis within the limits of their time and experience. Data are also being worked on by candidates for doctoral degrees such as - one American currently at UCLA and one Ghanaian at the University of Pennsylvania - and it is expected that students at the U.N. Regional Institute for Population Studies (RIPS) at the University of Ghana will also work on sections of the demographic data."

The new direction in research as applied to Areas I, II and III are described below. It is anticipated that the new approach to Area I will begin in January 1976 whereas for Areas II and III the new approaches should begin in March or April 1976.

B. Operational Research and Epidemiological Investigations by Area:

The major operational research and epidemiological investigations of the project are under Project Purposes I and III, i.e.:

Investigation of the state of the rural Ghanaian community concentrating on factors associated with health and family planning behavior.

Demonstrations of several cost-effective health care systems to include family planning as an integral component suitable to the Ghanaian context.

The following provides additional information on the framework on which the research will be structured. Basically, the approach will be to construct in each of the three separate areas a model which represents a realistic situation in significant sectors of rural Ghana.

Area I - Description:

Model I will be an area served by a health center (the Danfa Rural Health Center), with a staff of community health nurses, nurse midwives, sanitarian, dispenser, and midwife assistants, all headed by a health center superintendent and supported by a cadre of craftsmen and laborers. The health center runs an outreach program consisting of three satellite clinics, each operating one day a week. The health center and satellite system provide the required level of curative services including ambulance service but concentrate on preventive and promotive care including well-baby clinics.

Health center/organized services also programmed for specific disease prevention include malaria prophylaxis and polio and measles immunization. Other complementary services to the area are provided through community-based health education assistants who are trained in environmental sanitation, family planning, nutrition, first aid and community organization. The health education assistants are based in the communities rather than at the health center. This is particularly important for their work in community organization.

Community-Based Primary Health Care:

Each participating village will select one or more "health aides" to receive training in the rudiments of first aid, midwifery, child care and development, sanitation, treatment of minor illness, and family planning. The objective is to make basic services available on a continuous basis in the village. Arrangements for remuneration for services will be left to each village to make according to its own traditional pattern. Indigenous personnel in the communities, i.e., traditional birth attendants, have been organized and trained to provide improved midwifery services at the village level (including ante-natal and post-natal care).

Health center staff and the health education assistants will serve as resource people to these "health aides" as well as sources of supply for drugs and dressings.

Family Planning Component:

Family planning is a major component of the comprehensive service program of Model I. Family planning services are offered on a daily basis

in the health center as a regular, normal aspect of the MCH program and on a weekly basis at each of the satellites. In addition, traditional birth attendants (TBAs) trained by the Danfa Project are taught and encouraged to promote the value of family planning to the village family. Selected TBAs are also to be trained to distribute contraceptives (under supervision).

A further effort to increase the availability of contraceptives will be through use of commercial outlets and petty traders using appropriate commercial advertising. The existing program of fixed clinics with wayside village stops operated by the mobile family planning team will be continued; however, because of the high transport cost factor, this component will be gradually phased out as the other community-based programs become fully operational.

During the process, surveys, studies and records will determine major health problems and a good profile of the rural community. Analysis of data will determine the impact of the above-described community and commercial systems in promoting family planning concepts and distributing contraceptives. Taken together, the components outlined above comprise the type of comprehensive health care system which might revolve around and be coordinated by a rural health center. The Danfa Project research effort will demonstrate how these separate components can be organized and managed to form a coherent system of health care using the manpower and other resources likely to be available to a typical rural health center in Ghana.

AREA II - Description:

Model II, by contrast, represents those parts of the country which are served by small health posts operated by local authorities. Typically such health posts have limited resources, little or no outreach programs and tend to concentrate very much on curative care.

Health Care System:

The health post staff usually operates with two paramedical staff. The added element to be provided by the Danfa Project is a team of health education assistants based in the villages who (as in Area I) provide education, motivation and technical guidance in environmental sanitation, infectious disease prevention, child nutrition, family planning, and community organization and development. Their present role will be expanded to include a first aid capability, but the primary function will remain that of an agent for change in community health care.

The traditional birth attendant training program as in Area I will also be an added component. However, a different scheme for resupply and supervision will be devised since Area II has a less elaborate health infrastructure than Area I.

Family Planning Component:

The family planning service will continue to be offered in Area II on a daily basis at the health post. Since this service is readily accessible only to a small proportion of the population, a village-based contraceptive supply system employing volunteers will be established. Individual acceptors, after initial consultation with a "trained health worker," will be able to

receive subsequent supplies of contraceptives from the volunteer in his/her own village or one nearby. Volunteers will be supervised and supplied by the health education assistants who will also provide most of the technical expertise and much of the motivating/educating force in family planning in the area. Commercial outlets and traders will be utilized and commercial sales promoted. The mobile family planning team would continue to operate for the time being, but would be phased down as the community-based program builds up.

As in Area I, surveys, studies and records will add to the basic profile and store of information on health problems for development of national interventions.

Area III - Description:

Model III will provide the opportunity to examine the possibilities in an area which typically relies for its service on a Ministry of Health-operated health post which again has limited staffing and outreach programs but does have some Ministry back-up of personnel, drugs, dressings and transport.

Primary Health Services:

The major innovation proposed in this area is the addition of a system of community health aides analogous to that of Area I and the introduction of a health education assistant or similarly trained person to act as a technical consultant and a link to the health post. The person will be

based at the health post rather than in a village, as in Models I and II. Additionally, the traditional birth attendant training program will be extended to this model.

Family Planning Component:

Daily family planning service will be offered at the Health Post. Outreach from these health posts is limited. Therefore the community health aides will be trained and encouraged to provide family planning motivation and resupply. As in the case of the other two models, the present mobile family planning team will continue to operate but with the expectation of a phase-down as the village-based program takes hold.

Again, analysis of surveys, studies and records will provide information for national planners at the MOH and the NFPP.

In summary, the Danfa Project is an ongoing research, institution building and training project and, as noted in an earlier section, drastic changes in strategy are not being proposed. Those familiar with the project will recognize many of the service components described above.^{5/} A new factor and important innovation is the attempt to create a new kind of health worker for Ghana--the community health aide--in order to promote the concept of community self help.* Such a concept is receiving growing support around the world as possibly the most reliable and cost-effective means for distributing health (and other social services) to rural people in the developing countries. At the health center, health

^{5/} Area IV activities will be suspended during this phase of the project.

* See Annex D for copy of October 30 Danfa discussions on Village Based Primary Health Care.

posts and satellites, experimentation will continue with process measurements and improved staff composition, organization, task analysis and allocation, simplified drug list and utilization to determine systems of health care that are cost effective.

TABLE II

Area Service Components

	<u>Area I</u> Danfa Rural Health Center	<u>Area II</u> Amasaman Rural (Local Authority) Health Post	<u>Area III</u> Obom Rural (Ministry of Health) Health Post
1. <u>Additive Health Care Outreach provided by:</u>			
Satellites	X (3)	-	-
Health Education Assistants	X <u>a/</u>	X <u>a/</u>	X <u>b/</u>
Community Health Aides	X	-	X
Traditional Birth Attendants	X	X	X
2. <u>Family Planning Dispensing Agents:</u>			
Health center/post/ satellite staff	X	X	X
Community health aides	X	-	X
TBA's	X	X	X
Health Education Assistants	X	X	-
Mobile Team	X	X	X
Supervised Village Volunteer	-	X	-
Commercial Distribution	X	X	X

a/ Village based

b/ Health Post based

Note: Although cost-effectiveness contrasts among areas are to a certain degree inevitable, this is not the main purpose of the use of the three areas. Each area should be viewed as a distinct geographic entity in which a plausible model of a family health care system is being constructed using primary health care components which are available in one or another part of rural Ghana. In each case costs are being monitored and effectiveness measured to assure that, first, the cost of each system is within reasonable bounds for the Ghanaian situation, and second, that as each system evolves its effectiveness is enhanced. Component costs are being estimated separately because there is an element of modularity to each of these systems which will enable us to evaluate costs and benefits (not in the usual cost/benefit analysis sense where benefits are converted to fiscal terms, however) on an add-on basis.

3. Institutional Development and Training

The major training and institutional development activities are subsumed under Project Purposes II and IV, i.e.:

STRENGTHENING OF INSTITUTIONAL CAPABILITY AT THE GHANA MEDICAL SCHOOL TO CONDUCT RESEARCH AND TRAINING OF DOCTORS AND OTHER HEALTH WORKERS IN THE DELIVERY OF RURAL HEALTH AND FAMILY PLANNING SERVICES; and

TRANSFER OF INFORMATION DERIVED FROM PROJECT ACTIVITIES TO RELEVANT GOVERNMENT OF GHANA AGENCIES ON AN ONGOING BASIS.

Institutional development is a continuous process of the Danfa Project through formal training of personnel and demonstration and exposure to

programs of rural health care. The objectives are to make the Danfa Project and its rural-oriented training and research facilities a permanent resource for the MOH and the NFPP. Specialized training is aimed at providing in depth the kinds of specialization required to carry out research on health care problems and to demonstrate and test methods for improving systems of health care. These programs will provide GOG institutions information and trained personnel to carry out their services.

1. Specialized formal training programs are designed to develop skills in the techniques of health care including methods of planning and implementing of health and family planning delivery systems. Overseas participant programs in 1976, 1977 and 1978 will train six additional specialists at a Masters level (MPH or MS) in addition to staff already trained at the Department of Community Health/Danfa Project.

2. In-service training for MOH and NFPP personnel will be expanded to include management and administration of rural health programs. Project staff will provide classroom lectures, field orientation, and develop training curricula for professional, para-professional and auxiliary personnel. Important subject areas will include family planning, environmental sanitation, nutrition, etc.

Development of skills, methods and procedures for transfer of information to applied programs are being emphasized as one aspect of Institutional Development. Formal and informal discussions with the principal operating agencies, e.g. Ministry of Economic Planning, Ministry of Health, National Family Planning Program are establishing priorities and resource requirements which will result in production of valuable planning and operational guides and details of studies for applied programs. The actual production and dissemination of information will be conducted by a newly established Danfa Project Information Unit. The horizontal and vertical flow of information is a continual process assisted by:

1. Professional meetings, conferences with various interested agencies, formal annual review meetings and the written reports and proceedings arising from these discussions.
2. Danfa staff membership in - NFPP National Family Planning Council and Program Advisory Committee; Ministry of Health Advisory Committee and Ministry of Finance and Economic Planning Advisory Committee.
3. Direct exposure to Danfa research and operational programs of: (a) seconded staff from MOH, NFPP, etc;

- (b) MOH, NFPP staff sent to Danfa field site for short term training and orientation such as health center superintendents, public health nurses, sanitarians, family planning workers; and (c) participant training programs coordinated by the project for professional long term training.
4. Lectures delivered by Danfa staff at training institutions such as Kintampo and the University of Ghana.
 5. Direct community health training given at Danfa for medical students.
 6. Exposure to Danfa project of international Health and Family Planning officials e.g. WHO, IFFF, other donors who further stimulate interest in improved methods of expanding rural health and family planning.

The final report of the Project to USAID will contain sections detailing the various activities undertaken by the Project in the course of its research. The results of these activities will be set forth and a full discussion of the implications of these results will then be provided. In a sense, the detailed descriptions of the work undertaken by the Project in a given area - for example family planning, or malaria prophylaxis would comprise a rudimentary "manual" for operational procedures for the replication of this work. Nevertheless, these descriptive "how we did it" sections would offer an excellent basis for the development of

detailed manuals. To capitalize on the information and experience gained in the Danfa Project, UGMS is now exploring, in conjunction with the Ministry of Health and the National Family Planning Program, the possibility of establishing committees to produce manuals in several key areas such as family planning, training and deployment of traditional birth attendants, and rural health center organization and operation.^{a/} These activities, if they can be brought to fruition, will be separate from the main activities of the Project, but will clearly constitute an important "spin off" of the project ^{having} leaving an important national impact.

^{a/} USAID is considering assistance in development of procedural manuals as part of proposed Delivery of Rural Health Services Project 0082.

TABLE III

Department of Community Health Staff (DCH) ^{6/}

	<u>Responsibilities/Comment</u>
1. <u>In Training or on Staff:</u>	
(1) Project Director (Head DCH)	Administration/MCH
(1) Field Director	Administration/Epidemiology
(1) Health Services Research/ Administration	MPH - June 1977
(1) Administrative Assistant	In training
(1) Health Education/Behavior	March 1975
(1) Education Methodology	Part-time MOH
(1) Demographer/Statistician	PhD - June 1977
(1) Anthropologist	New - January 1976
(2) Epidemiology	New - January 1976/January 1977
(2) MCH	New - January 1976/January 1977
2. <u>Proposed Specialists for Training (MS/MPH):</u>	
(1) Health education	To be determined
(1) Epidemiology	To be determined
(1) Environmental Health	To be determined
(1) Demography	To be determined
(1) Management	To be determined
(1) MCH	To be determined
3. <u>Proposed Specialists for non-degree training</u>	
<u>6/</u> See Annex A for listing of personnel trained under project.	
(1) Curricula/Nurse Midwife	
(1) Education Methodology	
(1) Research	
(1) Analysis	

TABLE IV
Schedule of Primary Activities
 (12/75 through 2/79)

<u>Target/Completion Date</u>	<u>Description of Activities</u>	<u>Comments</u>
	1. <u>Major Surveys:</u>	
2/77	a) Definitive household census	6 rounds
Continuous	b) Vital Events Registration/ recheck	5 rounds
3/77	c) Village Health Epidemiological Survey	3 rounds
1/77	d) Malaria (Parasitemia) Surveys	Continuous
3/77	e) Household Health-Related Behavior Survey	4 rounds
5/77	f) Longitudinal Study (sample surveys)	3 rounds
	2. <u>Operational Research</u>	
6/78	a) TBA's Trained: Area I - 100% of those identified Area II - 50% of those identified	
6/78	Area III - 50 % of those identified	Lower target in Areas II/III is realistic considering difficulties in transport and communications.
	b) <u>Village/Community-based Primary Health Care System Introduced</u>	
6/78	Area I - 15 communities Area III - 12-15 communities	See Annex D for summary description of organizational meetings on village-based primary health care.

c) Health Education Assistants
Trained and Posted:

6/78 Area I outreach - 100% communities
6/78 Area II outreach - 100% communities

3. Other Training:

Continuous	Medical Students - 50/60/year	Ongoing-Ghana Med. School
6/79	Senior physicians - 2/year	Overseas specialization in such areas as MCH/FP, epidemiology, public health practices. Continuing after 6/79 under other programs. Other health personnel includes public health nurses, health center superintendents, community health nurses.
Continuous	Other health personnel - 100/year	

4. Analysis of Data:

8/78 a) Final analysis of research data (UCLA) for final report
Continuous b) Analysis of data in Ghana

1/78 5. Close Down of UCLA/Accra TDY consultancy planned to assist in final year

11/78 6. Final Project Review ^{7/} Invitations to African health planners and educators

2/79 7. Final Report

^{7/} USAID encourages AID/W provision of funds for West African participants for travel/per diem through central funding, e.g., Strengthening of Health Services Project.

C. Evaluation Arrangements:

The initial review by the Danfa Project Policy Advisory Committee will discuss the revised Project Paper. The review committee is to include members of the MOH, GNFP and GMS. It is planned that the Policy Advisory Committee will formally review project activities on a semi-annual basis in the future. USAID will participate in these reviews and will report on proceedings.

Joint UCLA/GMS conferences/review meetings are planned on an annual basis to include Ghanaian, U.S. and third country participation. These conferences have become important forums for the dissemination of research information and discussion with other African officials involved in health and family planning activities. A final conference is scheduled for November 1978 which will also serve as USAID's end-of-project evaluation. It is also planned that this last review will include AID/W participants plus appropriate invitees from other African countries.

Review Schedule:

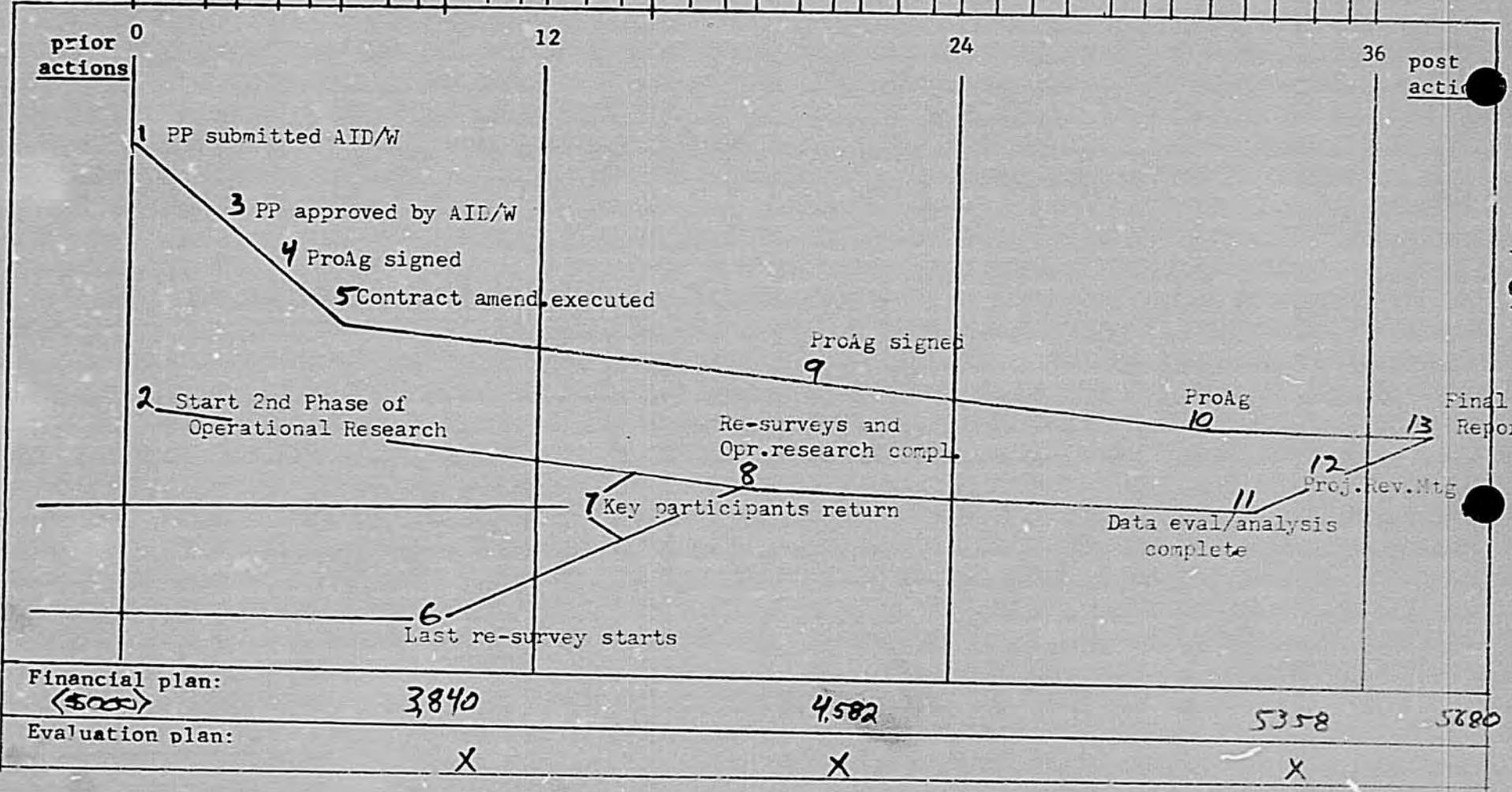
1/76	Formal Policy Advisory Committee Review of Project Proposal
4/76	UCLA/GMS Seventh Annual Danfa Project Review Meeting (Ghana)
9/76	Formal Policy Advisory Committee Review
3/77	UCLA/GMS Eighth Annual Danfa Project Review Meeting (UCLA)
9/77	Formal Policy Advisory Committee Review
3/78	Formal Policy Advisory Committee Review
11/78	Final UCLA/GMS Project Review Meeting (Ghana)

Country: GHANA	Project No: 641-0055	Project title: Danfa Rural Health/ Family Planning Project	Date: 1/5/76	/x / original / / revision #	approved:
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FY: 76 IO 77 78 79

month 76 77 78 79

JAN | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | J



PROJECT PERFORMANCE NETWORK

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Country: GHANA	Project No: 641-0055	Project title: Danfa Rural Health/Family Planning Project	Date: 1/5/76	/x / original / / revision #	apprvd:
<u>CPI NARRATIVE</u>		<u>ACTION AGENT</u>	<u>ACTION AGENT</u>		
1.	1/5/76	PP submitted to AID/W	USAID		
2.	1/5/76	Start second phase of operational research in Areas I, II, III	UoG/UCLA		
3.	3/30/76	PP approved by AID/W	AID/W		
4.	5/15/76	Pro Ag signed	USAID/GOG		
5.	6/30/76	UCLA Contract amendment executed	AID/W		
6.	9/30/76	Last of four-re= surveys starts. (Household Census #6; Village Health #3; Household health Related behavior #4; Longitudinal #3)	UCLA/UoG		
7.	1/30/77	Four Key participants return to project	UCLA		
8.	6/30/77	Re-surveys and operational research completed	UoG/UCLA		
9.	8/31/77	FY'77 Pro Ag signed	USAID/GOG		
10.	8/31/78	FY'78 Pro Ag signed	USAID/GOG		
11.	9/30/78	Data evaluation and analysis complete	UoG/UCLA		
12.	11/30/78	Project Review Meeting and final evaluation	AID/W; UCLA; UoG/USAID		
13.	2/28/79	Final Report and end of Project	UCLA/UoG		

Annex A

Personnel Trained at Danfa Project

A. Ministry of Health

1. Dr. R. Asante, MPH Degree UCLA, specializing in MCH. Trained from September 1971 to September 1972. Upon return to Ghana was assigned to RMOH, Greater Accra Region, and designated Medical Officer for Danfa Health Center. Served in this capacity for two years and has since been actively concerned with Ministry training and Health Center development activities. He still attends Danfa staff meetings and cooperates with the DCH.
2. Mr. J. Gadzekpo. Non-Degree Certificate, Cytotechnology, Johns Hopkins University. Trained from September 1971 to September 1973. Reassigned to Korle Bu Teaching Hospital (associated with GMS) where he offers services in his areas of specialization.
3. Dr. Hutton Addy. MPH Degree, UCLA. Specialized in MCH/FP/Nutrition. Trained from September 1973 to November 1974. Upon return to Ghana first assigned as MCH/FP/Nutrition advisor and more recently Nutrition only. Has cooperated closely with Danfa project, having been one of the physician examiners during Round 2 of the Village Health Survey.
4. Dr. Doris Hayfron-Benjamin. MPH Degree, UCLA. Specialized in MCH/FP/Nutrition, trained from September 1973 to November 1974. She was not a Danfa project trainee but was funded under a USAID grant issued through the GNFP. However, her training was carefully supervised by UCLA Danfa Project Co-Director and his staff. Her training very much paralleled that of Dr. Addy. She is now assigned to the Kumasi area of the Ministry and is hoped that she will take over the MCH functions of the Ministry for the northern half of the country.

B. Ghana Medical School

1. Dr. G. Ashitey. Non-Degree Certificate in Communicable Disease Control, with field experience at the CDC Atlanta from June to September 1970. Upon return to Ghana, was made lecturer in the Department of Community Health and assigned as Medical Officer to Danfa Health Center until September 1972. As a continuing member of the Department he is still concerned with the Danfa project.
2. Mrs. M. Pappoe. MPH Degree, U.C. Berkeley. Specialized in Health Education, trained from September 1971 to October 1972 and later in November and December 1973 when she carried out field visits to a number of African countries. Upon her return to the GMS in 1972, she was appointed a lecturer in the DCH and has since headed up the Health Education Section, working closely with the UCLA health educator and the health education assistants.
3. Mr. E. Quartey-Papafio. B.A. Degree, San Fernando Valley State College, California, in Health Education/Behavioral Sciences, and M.S. Degree, University of Missouri, Columbia, Missouri, in Community Development Organization. Trained from September 1971 to March 1975 and upon his return to Ghana was appointed a lecturer in the DCH. He is working most actively with the Danfa project with respect to community development organization.
4. Mr. K. Kwabia. Non-Degree student at UCLA, specializing in data processing, records management and research methodology from January to April 1973. He is a Research Analyst employed by the Ghana Medical School with the Danfa project and is now being sent once more for

- further training to the University of Southern California to take a Master's Degree in Public Administration with specialization in Public Health Administration. It is hoped that upon his return he will be appointed to the DCH as an actual member of that department where he will continue to work closely with the Danfa project and to hopefully carry on some of its activities after the departure of the UCLA Team.
5. Mr. S.K. Avle. Non-Degree student at UCLA in Data Processing, Records Management and Research Methodology, from March to August 1975. He is a Research Analyst employed by the Ghana Medical School for the Danfa Project and will now continue to serve this project.
 6. Dr. P.R. Lamptey. MPH Degree, UCLA, specialized in MCH/FP/Nutrition. Trained from September 1974 to October 1975. Upon returning to Ghana will be seconded by the Ministry of Health to the GMS to work in the DCH in connection with teaching as well as the Danfa project. He will thus provide the first major step in helping to take over from the UCLA MCH/FP/Advisor in connection with the phase-out of the latter.
 7. Dr. E.N. Mensah. MPH, UCLA. Specialized in epidemiology and trained from September 1974 to October 1975. Upon return to Ghana is being assigned by the MOH to the Ghana Medical School to work with the DCH in connection with the Danfa project.
 8. Dr. L. Osei. MPH candidate at UCLA, specializing in MCH/FP/Nutrition, training from August 1975 to September 1976. Upon his return to Ghana to be assigned by the Ministry of Health to the Ghana Medical School and seconded to the Department of Community Health where he will provide

further back-up in his area of specialization, both for purposes of teaching and in connection with the Danfa project.

9. Dr. E. Osei-Tutu. MPH candidate, UCLA, specializing in Epidemiology, training from August 1975 to September 1976. Upon his return to Ghana to be assigned by the Ministry of Health to the Ghana Medical School and seconded to the Department of Community Health to provide further back-up in his area of specialization, both in teaching and in support of the Danfa project.

On a local basis, a number of individuals have received training and provide support to the Ghana Medical School, and in particular the Department of Community Health. Some examples are a computer programmer originally assigned to the Ghana Medical School as a National Service Volunteer and assigned to the project. Two research assistants, fully trained by the project in field research operations, coding and editing of data, etc., have been taken on by the Department of Community Health as regular staff members. The junior accountant/cost monitor assigned to the Department of Administration of the Ghana Medical School specifically for the purpose of serving the Danfa project has received intensive training by the Administrative Assistant of the UCLA Team.

DANFA PROJECT

Publications and Papers in Progress

A. Published

1. Sai, F.T. , F.K. Wurapa and E.K. Quartey-Papafio, "The Danfa/Ghana Comprehensive Rural Health and Family Planning Project - A Community Approach," Ghana Medical Journal, Vol.II, No.1, March 1972.
2. Neumann, A.K., J. Prince, E.F. Gilbert, and I.M. Lourie, "The Danfa/ Ghana Comprehensive Rural Health and Family Planning Project - Preliminary Report", Ghana Medical Journal, Vol.II, No.1, March 1972.
3. Sai, F.T., "A Rural Health Model: Danfa, Ghana", in Health Care for Remote Areas, An International Conference, sponsored by Kaiser Foundation International, Bellagio, Italy, May 1972. (James Hughes, Editor).
4. Ashitey, G.A., F.K. Wurapa and D.W. Belcher, "Danfa Rural Health Centre: Its Patients and Services 1970-71," Ghana Medical Journal, Vol.II, No.3, September 1972.
5. Kpedekpo, G.M.K., "The Planning and Design of Sampling Surveys with Particular Reference to the Epidemiological Survey of the Danfa Project in Ghana", Ghana Medical Journal, Vol.II, No.4, December 1972.
6. Kwansa, E.V.G., J.A. Cannon, D.W. Belcher and M. Hosu-Porbley, "Perception and Comprehension of Health Education Visual Aids by Rural Ghanaian Villages", Ghana Medical Journal, Vol.II, No.4, December 1972.
7. Neumann, A.K. F.T. Sai, I.M. Lourie and F.K. Wurapa, "A New Trend in International Health Work: The Danfa Project", International Development Review, 1973.
8. Wurapa, F.K., and I.M. Lourie, "Focusing on Family Health in The Rural Communities", Published in The Teaching and Practice of Family Health - the Proceedings of a Regional Seminar; sponsored by the Association of Medical Schools in Africa; Accra, Ghana, January 8-12, 1973.
9. Wurapa, F.K., "Rapid Population Growth and Rural Development", published in The Teaching and Practice of Family Health - the Proceedings of the Conference sponsored by the Association of Medical Schools in Africa; Kampala, Uganda, November 29th - December 3rd, 1971.
10. Wurapa, F.K., and I.M. Lourie, "The Danfa Rural Health and Family Planning Project", published in The Proceedings of the African Regional Population Conference; sponsored by the IUSSP and ECA; held in Accra, Ghana - December 13-17, 1971.

11. Neumann, A.K., S.R.A. Dodu, "Danfa Project"; a letter to the Editor; The Lancet, March 30, 1974.
12. Neumann, A.K., Ampofo, D.A., Nicholas, D.D., Ofosu-Amaah, S., Wurapa, F.K., "Traditional Birth Attendants - A Key to Rural Maternal and Child Health and Family Planning Services", Environmental Child Health, February 1974.
13. Neumann, A.K., Sai, F.T., Dodu, S.R.A., "Danfa Comprehensive Rural Health and Family Planning Project: Ghana, Research Design", Environmental Child Health, February 1974.
14. Wurapa, F.K., Belcher, D.W., Neumann, A.K., Lourie, I.M., "An Approach to Illness Measurement in a Rural Community - A Questionnaire Sample Survey of Households in the Population of the Danfa Comprehensive Rural Health and Family Planning Project in Ghana, "Ghana Medical Journal, June 1974.
15. Belcher, D.W., Wurape, F.K., Ward, W.B., Lourie, I.M., "Guinea Worm in Southern Ghana: Its Epidemiology and Impact on Agricultural Productivity", The American Journal of Tropical Medicine and Hygiene, Vol. 24, No. 2, March 1975.
16. Belcher, D.W., Wurapa, F.K., Ward, W.B., "Failure of Thiabendazole and Metronidazole in the Treatment and Suppression of Guinea Worm Disease", The American Journal of Tropical Medicine and Hygiene, Vol. 24, No. 3, May 1975.
17. Kpedokpo, G.M.K., Belcher, D.W., Wurapa, F.K., Neumann, A.K., Lourie, I.M., "Results of the Analysis and Evaluation of Vital Registration Data from the Four Project Areas, Danfa Comprehensive Rural Health and Family Planning Project, Ghana", published by the UCLA School of Public Health and the University of Ghana Medical School, as Monograph Series, Number 1.
18. Kpedekpo, G.M.K., Wurapa, F.K., Lourie, I.M., Belcher, D.W., Neumann, A.K., "Estimates of Indices of Mortality (Infant, Child and Adult) from Registration Data, Danfa Comprehensive Rural Health and Family Planning Project, Ghana," published by the UCLA School of Public Health and the University of Ghana Medical School, as Monograph Series Number 2.
19. Kpedekpo, G.M.K., Nicholas, D.D., Ofosu-Amaah, S., Wurapa, F.K., Belcher, D.W., "Estimates of Indices of Fertility from Registration Data, Danfa Comprehensive Rural Health and Family Planning Project, Ghana", Published by the UCLA School of Public Health and the University of Ghana Medical School, as Monograph Series, Number 3.

20. Kpedekpo, G.M.K., Wurapa, F.K., Lourie, I.M., Neumann, A.K., Belcher, D.W., "Some Results and Problems on the Estimation of Vital Rates in a Rural African Setting via Multiple Methods, Danfa Comprehensive Rural Health and Family Planning Project, Ghana", published by the UCLA School of Public Health and the University of Ghana Medical School, as Monograph Series, Number 4.
21. Kpedekpo, G.M.K., Lourie, I.M., Belcher, D.W., Wurapa, F.K., Neumann, A.K., "Migration Patterns, Population Growth and Change in the Project Areas of Danfa, Danfa Comprehensive Rural Health and Family Planning Project, Ghana", published by the UCLA School of Public Health and The University of Ghana Medical School, as Monograph Series, Number 5.
22. Kpedekpo, G.M.K., Lourie, I.M., Wurapa, F.K., Belcher, D.W., Neumann, A.K., "An Analysis of the Population Size, Age/Sex Distribution, Danfa Comprehensive Rural Health and Family Planning Project, Ghana", published by the UCLA School of Public Health and the University of Ghana Medical School, as Monograph Series, Number 6.
23. Kpedekpo, G.M.K., Wurapa, F.K., Belcher, D.W., Neumann, A.K., Lourie, I.M., "An Analysis of Marital Status, Education, Ethnic, Religious and Occupational Composition, Danfa Comprehensive Rural Health and Family Planning Project, Ghana", published by the UCLA School of Public Health and the University of Ghana Medical School, as Monograph Series, Number 7.
24. Kpedekpo, G.M.K., Asuming, K., Blumenfeld, S.N., Wurapa, F.K., Belcher, D.W., "An Analysis of the Characteristics of Households, Household Size, Household Heads and the Relationship within the Households, Danfa Comprehensive Rural Health and Family Planning Project, Ghana", Published by the UCLA School of Public Health and the University of Ghana Medical School, as Monograph Series, Number 8.
25. Belcher, D.W., Wurapa, F.K., Nicholas, D.D., Kpedekpo, G.M.K., Ofosu-Amaah, S., Derban, L.K.A., Asante, R.O., "Conducting a Rural Health Survey: Experience from the Village Health Survey, Danfa Project, Ghana, Danfa Comprehensive Rural Health and Family Planning Project, Ghana", published by the UCLA School of Public Health and the University of Ghana Medical School, as Monograph Series, Number 9.
26. Belcher, D.W., Nicholas, D.D., Ofosu-Amaah, S., Wurapa, F.K., Blumenfeld, S.N., "Factors Influencing Utilization of a Malaria Prophylaxis Programme in Ghana", Social Science & Medicine, May 1975.

DANFA PROJECTPublications and Papers in ProgressB. In Press or Already Submitted to Journals

1. Wurapa, F.K., and Lourie, I.M., "Population Growth and Rural Health", presented at The West African Regional Seminar on Population Studies, December 1-4, 1972. To be published in Proceedings of the Seminar.
2. Wurapa, F.K., "A Community Approach to the Organization of a Comprehensive Rural Health Care System - The Danfa Experience", presented at the Conference on Health of the Family Unit - under auspices of Institute of African Studies, Fourah Bay College, University of Sierra Leone, September 17-21, 1973, to be published in Proceedings of the Conference.
3. Wurapa, F.K., Belcher, D.W. and Neumann, A.K., "Morbidity in Rural Communities - The Questionnaire Interview Approach to Providing Useful Data for Health Planning", presented to the Inaugural Conference of the Population Association of Africa at the University of Ibadan, May 10-14, 1974. To be published in Proceedings of this Conference.
4. Britt, P.M., Blumenfeld, S.N., Wurapa, F.K., Kpedekpo, G.M.K. and Neumann, A.K., "A Case Study in Computer Applications for Developing Countries - The Danfa Comprehensive Rural Health and Family Planning Project, Ghana", presented before the Second Jerusalem Conference on Information Technology - (July 29 - August 1, 1974), and to be published in their Proceedings.
5. Belcher, et al., "Comparison of Morbidity Interviews with Health Examination Survey", submitted to Am. J. Trop. Med. & Hygiene.
6. Belcher, D.W., Wurapa, F.K., Neumann, A.K., Lourie, I.M. & Johnson, O.G., "A Household Morbidity Survey in Rural Africa", submitted to Int. J. of Epidemiology.
7. Johnson, O.G., Ofosu-Amaah, S., Neumann, A.K., "Health Information System Installation -- Principles and Problems", Accepted by Medical Care (June 12, 1975).
8. Neumann, et al., "Integration of Family Planning and MCH", submitted to J. of Biosocial Science.
9. Belcher, et al., "The Role of Health Survey Research in Maternal and Child Health/Family Planning Programs: Danfa Project, Ghana", to be published in J. Trop. Peds. & Environ. Child Health.
10. Belcher, et al., "Non-Response Factors in a Rural Health Examination Survey in Ghana", accepted by Public Health Reports on August 5, 1975.

DANFA PROJECTPublications and Papers in ProgressC. In Draft Form or Completed and Being Readied for Journal Submission

1. Neumann & Beausoleil, "Ghana, Health Services".
2. Belcher, D.W. et al., "Analysis and Reorganization of Rural Health District".
3. Belcher, D.W., Wurapa, F.K. & Atuora, D.O.C., "Endemic Rabies in Ghana -- Epidemiology and Control Measures".
4. Belcher, D.W., Afoakwa, S.N., Osei-Tutu, E., Wurapa, F.K., Osei, L., "Endemic Pyoderma in Rural Ghana".
5. Nicholas, D.D., Kratzer, J.W., Ofosu-Amaah, S., "A Survey of Lameness Due to Poliomyelitis in Rural Ghana".
6. Wurapa, F.K., Derban, L.K.E., Belcher, D.W., Chinery, W.A., Asante, R.O., "A Survey of Parasitic Infections in Rural Ghana".
7. Ampofo, D.A., Nicholas, D.D., Ofosu-Amaah, S., Neumann, A.K., "The Danfa Family Planning Program in Rural Africa".
8. Nicholas, D.D., Ofosu-Amaah, S., Ward-Brew, K., Ward, W., Osei, L., "A Mass Multiple Antigen Immunization Program in Southern Ghana".
9. Nicholas, D.D., Ampofo, D.A., Ofosu-Amaah, S., Asante, R.O., Neumann, A.K., "Attitudes and Practices of Traditional Birth Attendants in the Danfa Project Area of Ghana".
10. Wurapa, F.K., Belcher, D.W., "Tuberculin Skin Test in a Rural Ghanaian Population".
11. Neumann, A.K., Ampofo, D.A., Nicholas, D.D., Amonoo-Acquah, M.B., Boyd, D., "Utilization of Traditional Birth Attendants -- Danfa Project Progress Report and Evaluation Plans".
12. Neumann, A.K., Ward, W.B., Pappoe, M.E., Boyd, D., "Evaluating the Impact of Integrated Health and Family Planning Education in Rural Ghana: The Danfa Project".
13. Neumann, A.K., Dodu, S., "Institutionalization of Technical Assistance Projects".
14. Belcher, D.W., et al., "Attitudes Toward Family Size and Family Planning in Rural Ghana. Danfa Project 1972 Survey Findings".

15. Ampofo, D.A. et al., "The Art and Science of Traditional Birth Practices in Ghana: Case Study of the Traditional Birth Attendant Programme in the Danfa Project".
16. (Authors not specified) "Training and Educational Experience of Traditional Birth Attendants in Danfa Rural Health Project".
17. Neumann, C.G., Lance-Elahi, L., "Nutrition as a Part of an Integrated Family Planning and Health Project: The Danfa Project".
18. Blemenfeld, et al, "Service Costs in a Rural Health Care Program".
19. Blemenfeld, et al, "The Effect of Spatial Distribution on Utilization of Rural Health Services".
20. Ofosu-Amaah, S., Kratzer, J., Nicholas, D., "A Postal Survey of Lameness Among School Children in Ghana".
21. Pobee, J.O.M., Larbi, E.B., Belcher, D.W., Wurapa, F.K., Dodu, S.R.A., "Blood Pressure Distribution in a Rural Ghanaian Population".
22. Ward, W.B., Belcher, D.W., Wurapa, F.K., Quaye, S.O., "Perception and Management of Guinea Worm Disease Among Ghanaian Villages: A Framework for Differential Health Education Planning".

DANFA PROJECTPublications and Papers in ProgressD. In Initial Planning Stage or Early Preparation

1. Nicholas, D., Ofosu-Amaah, S., "Current Concepts of Immunization for Ghana".
2. Ofosu-Amaah, S., Nicholas, D., Ashitey, G., Asante, R., Ampofo, D., "Planning and District MCI Program for Rural Ghana".
3. Nicholas, D., Ofosu-Amaah, S., Asante, R., Belcher, D., "Prevalence of Seizure Disorders in Danfa Area of Rural Ghana".
4. Ofosu-Amaah, S., Nicholas, D., Ampofo, D., Belcher, D., Wurapa, F., "The Status of Maternal Child Health in the Danfa Area of Rural Ghana".
5. Nicholas, D., Ofosu-Amaah, S., Belcher, D., Wurapa, F., Assaad, F., "A Serological Survey of Children in the Danfa Project Area".
6. Nicholas, D., Ampofo, D., Ofosu-Amaah, S., Lourie, I., Neumann, A., "A Follow-up Survey of FP Acceptors in Rural Ghana".
7. Ofosu-Amaah, S., Nicholas, D., Belcher, D., Wurapa, F., Asante, R., Addy, H.A., "Nutritional Status of Children in the Danfa Areas of Rural Ghana".
8. Ofosu-Amaah, S., Nicholas, D., Blumenfeld, S., Ampofo, D., "Relationship of Acceptance to Accessibility of FP Services".
9. Nicholas, D., Ofosu-Amaah, S., Belcher, D., Osei, L., Osei-Tutu, E., "Malaria Prophylaxis in Rural Ghanaian Children Using Volunteer Distributors".
10. Neumann, et al., "Laboratory Services in a Rural Health Center".
11. Neumann, A., Lourie, I., Blumenfeld, S., Wurapa, F., "Patient Compliance as a Factor in Laboratory Services in a Rural Health Center".
12. Blumenfeld, S., Kwabia, K., "Population Growth and Change in a Rural Area".
13. Kwabia, K., Blumenfeld, S., "Vital Event Rates in a Rural Population".
14. Belcher, D., Nicholas, D., Kratzer, J., Ofosu-Amaah, S., "Methods of Acquiring Information About the Incidence of Poliomyelitis".
15. Ward, W.B., Nicholas, D.D., Wurapa, F.K., Osei, L., Osei-Tutu, E. "An Evaluation of the use of Morley Cards in an Under-Five Child Health Programme, Danfa, Ghana".

16. Ward, W.B., Hosu-Porbley, M., Nicholas, D.D., Pappoe, M., "Family Planning Education at a Ghanaian Health Post".
17. Pappoe, M.E., Ward, W.B., "The Role of Health Education Assistants in a Ghanaian Comprehensive Rural Health and Family Planning Programme".
18. (Monograph) Pappoe, M.E., Ward, W.B., "Training Middle School Leavers for Community Health Work".
19. (Monograph) Ward, W.B., Pappoe, M.E., "Planning, Implementing, and Evaluating a Community Health Education Programme".

EXPENDITURE SUMMARY OF PROJECT COSTS

I. <u>Contract Costs</u>	<u>FY 76-79</u> ((\$000))					<u>Totals</u> <u>FY 76 - FY 79</u>	
	<u>FY 76</u>	<u>I.Q.</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>		
A. <u>Personnel Costs</u>							
1) UCLA Academic	58.2	25.8	62.4	160.2	81.4	388.0	(%)
2) UCLA Non-Academic	70.1	18.8	77.7	83.7	45.9	296.2	
3) UCLA Ghana Academic	150.4	31.1	113.3	12.9	-	307.7	
4) UCLA Ghana Non-Academic	<u>16.8</u>	<u>4.8</u>	<u>10.4</u>	<u>3.3</u>	<u>1.1</u>	<u>36.4</u>	
Sub-Total (Salaries	295.5	80.5	263.8	260.1	128.4	1030.1	
5) Personnel Allowances (Ghana)	89.2	16.7	67.8	7.3	-	181.0	
6) Fringe Benefits	<u>45.6</u>	<u>12.8</u>	<u>42.2</u>	<u>42.4</u>	<u>20.9</u>	<u>163.9</u>	
Total:	430.3	110.0	373.8	309.8	149.3	1373.2	(45)
B. Equipment/Supplies	59.1	-	41.0	23.7	0.6	124.4	(4)
C. Travel/Household, Storage and Removal Expenses	49.5	4.6	54.5	47.1	53.1	208.8	(7)
D. Local Travel	56.0	15.1	-	-	-	71.1	(2)
E. Other Direct Project Costs	108.9	33.8	92.0	123.1	75.6	433.4	(14)
F. Participant Training	30.2	7.5	20.0	50.0	50.0	157.7	(5)
G. Indirect Costs: (Overhead)	<u>143.1</u>	<u>34.0</u>	<u>124.7</u>	<u>110.8</u>	<u>48.5</u>	<u>461.1</u>	(15)
	877.1	205.0	706.0	664.5	377.1	2829.7	
II. Local Currency Costs: Gas, Misc. Supplies, Maintenance of Equip- ment, etc.	<u>-</u>	<u>-</u>	<u>95.0</u>	<u>85.0</u>	<u>25.0</u>	<u>205.0</u>	(7)
Total Project Costs	\$877.1	205.0	801.0	749.5	402.1	3034.7	(100)

ANNEX C

Detailed Project Costs (Expenditures)

FY 71 - 79

641-0055

	FY	Personnel Salaries/ Allowances	Equipment & Supplies	Participant Training	Other Costs (3)	Local Currency PL-480 Title II 104(h)	Total
Expenditures - Actual -	71	334 (1)	14	12	24	44	428
	72	325	24	26	29	70	474
	73	391	50	45	153	136	775
	74	479	26	20	162	96	783
	75	528	91	22	130	121	892
	Sub-total	2,057	205	125 (2)	498	467	3,352
Expenditures - Projected -	76	570	59	30	218	-	877
	IQ	147	-	8	50	-	205
	77	499	41	20	241	-	801
	78	421	24	50	255	-	750
	79	<u>198</u>	<u>1</u>	<u>50</u>	<u>153</u>	<u>-</u>	<u>402</u>
		3,892	330	283	1,415	467	6,387

(1) Includes \$37,000 Direct Pre-project feasibility survey costs.

(2) Includes \$97,000 Direct Participant Funding.

(3) FY 76 - 79 "Other Costs" includes Indirect Costs (overhead) @ 143, 34, 125, 111, and 49 respectively, previously included in "Personnel Salaries and Allowances".

ANNEX C

PROJECT SCHEDULED OBLIGATIONS AND
FUNDING PERIODS

641-0055

<u>FY</u>	<u>OBLIGATIONS</u>	<u>OPERATION FUNDING PERIOD</u>
75 and prior	3,741*	5/1/70 - 6/30/76
76	700	7/1/77 - 4/30/77
TQ	175	5/1/77 - 7/31/77
77	871	8/1/77 - 9/30/78
78	433	10/1/78 - 2/28/79
TOTAL	<u>5,920</u>	

*does not include PL-480 contribution of \$467,000

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Annex D

COPY OF WORKSHOP AGENDA - VILLAGE BASED PRIMARY HEALTH CARE

University of Ghana Medical School
(Department of Community Health - Danfa Project)

Workshop
Danfa Health Center
(October 30, 1975)

"Health for our Mothers and Children of the Villages"

Over the years one categorical program after another has been introduced into a number of villages. A number of supervisors may interact with one community. It becomes difficult to coordinate programs and can be confusing to both staff and villagers. Too much initiative has had to come from project staff in stimulating interest in the program, training, supervising and maintaining enthusiasm. This is difficult logistically and is expensive. Supervisory interest also tends to lag after some time.

The purpose of the workshop is to explore other approaches to providing primary preventive and curative health care within villages, especially as to how villages can seize the initiative to provide their own care to the extent feasible, with limited outside direction and support. The workshop emphasizes Volunteer participation in the provision of Health Care.

Group Study Sessions

- Group I Village Participation - Chairman, Dr. Ofosu Amaah
- Group II Training of Village Health Aides - Chairman, Dr. D. Belcher
- Group III Relationships Between Volunteer Groups and Official Health Agencies - Chairman, Mrs. Richardson
- Group IV Areas of MCH Activity - Chairman, Mrs. Asante
- Group V Other Health Care Activities - Chairman, Dr. Wurapa
- Group VI Administration and Logistics - Chairman, Dr. Lourie

A. WORKSHOP ON VILLAGE BASED PRIMARY HEALTH CARE
QUESTIONS FOR DISCUSSION GROUPS

Group I: Village Participation (Village Direction) Chairman:- Dr. Ofosu-Amaah

1. How does one interest a village in providing its own health care ?
2. How can one maximize the participation of an individual in providing his own health care ?
3. How will the village motivate, recruit and select village health aides ?
4. What resources at the village-level should be used in promoting extensive community involvement in the delivery of primary health care ?
(e.g. personnel facilities, development on health committees, traditional healers, etc).
5. What alternate types of organizational structures within the village can be developed to promote village based primary care ?
6. How can the village health committee increase a sense of commitment among its village health aides ?
7. How will the village direct and supervise the program ?
8. Should charges be levied for services ?

Group II: Training of Village Health Aides: Chairman:- Dr. D. Belcher

1. What should be the nature of the training programme for village health aides?
2. Should adult education experts be involved in the planning of the training programme ?
3. Where and how should the training programme be carried out? e.g. in the village on a one-by-one basis, in groups or at any other central location?
4. Who should train the village health aides? Specialists? Those who will later coordinate the programmes? Health Center Staff? Other volunteers?
5. Should manuals be developed to aid in training and guiding practice later on ? What type of manuals can be recommended ?
- 6a. What should be the nature of the training for health agency workers who may be working with and coordinating such programmes in a district ?
- b. Is it necessary to retain the Danfa Project workers for their role in supervising and coordinating village programmes ?

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Group III: Relationships Between Volunteer Groups and Official Health Agencies

Chairman:- Mrs. D. Richardson

1. Who should coordinate the programmes existing in the various villages of a district? District supervisory personnel ? Community Development Workers? Health Center Staff? Special persons working only in the project area?
2. What should be the role of these "coordinators"?
3. What should be the linkage for referrals or for coordinating care (e.g. village's role in Mass Immunization Programmes)
4. What local or external linkages should be established to reflect the comprehensive and team effort towards total development of the populations involved.

Group IV: Areas of M.C.H. Activity: Chairman:- Mrs. M. Asante

1. The following are suggested as M.C.H. Activities in which the community volunteers can be involved:-

First Aid
Maternal Care
Child Care
Nutrition
Health Education
Family Planning

2. Should local felt needs determine the direction of primary health care ?
3. What other M.C.H. activity can be incorporated ?
4. What should be the detailed content of those activities having regard to your knowledge of village resources ?
5. How should the activities be organized and coordinated within the village?
6. In what way can the traditional healer be involved ?
7. Are there any medical, legal, and administrative constraints to be considered ?

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Group V: Other Health Care Activity; Chairman:- Dr. G. Ashitey

1. The following are suggested other health activities in which community volunteers can be involved:

Environmental Sanitation
 Vital Events Registration
 Disease Surveillance
 Community Self-Study
 Home Visiting

2. Should felt needs of the village determine the services provided ?
3. What other activities can be incorporated ?
4. What should be the detailed content of those activities having regard to your knowledge of village resources ?
5. How should the activities be organized and coordinated within the village?
6. Are there any medical, legal, and administrative constraints to be considered ?

Group VI: Administrative and Other "logistics" Matters

1. Should village-based primary health care be:
 - a) Government or Agency Responsibility?
 - b) Village-by-Village Responsibility?
 - c) Cluster-by-Cluster Responsibility?
 - d) Part of total Development?
2. Should local felt needs determine the direction of primary health care?
3. How can felt needs be incorporated in national priority?
4. Having regard to traditional village social structure, who should give leadership to village-level primary health care:

literate or illiterate?
 men, women, youths, elders, traditional heads?
5. Should village-based primary health care facility receive support from a sponsoring agency or government? What is the type of support?
6. In what ways should the project support the village-based programme?
7. How should such program be evaluated.

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B. SUMMARY OF CURRENT VILLAGE BASED PROGRAMS

I. Vital Events Registration Assistants:

- A. Need: Project needed agents in village clusters to report vital events so that vital rates could be determined.
- B. Role: Discover, record and report births and deaths.
- C. Qualifications: Literate (usually a teacher)
- D. Selection: By project workers
- E. Training: Mainly didactic lectures at central locations in each area.
- F. Supervision: By project vital events supervisor (0' level leaver)
- G. Results: At best 80-90% births and 60% deaths recorded in Area I. Less in other 3 areas.
- H. Problems: Irregular coverage of villages; gaps in coverage due to teacher holidays and transfers; requests for bicycles, boots, torches, etc., Inadequate feedback and motivation. Now use paid, full time assistants.

II. Traditional Birth Attendants (TBA's)

- A. Need: 30-50% births are attended by TBA's. Wanted to improve their skills and ability to refer high risk cases. Also to aid in promotion of family planning.
- B. Role: As above.
- C. Qualifications: Already be a practicing TBA.
- D. Selection: Self-selected.
- E. Training: Lectures, discussions and demonstrations by nurse-midwife at 4 different cluster locations in Area I of project region. Midwifery kit given to each TBA.
- F. Supervision: By nurse-midwife and HEA's (health education assistants).
- G. Results: TBA's have used kits and referred patients.

- H. Problems: TBA's are elderly and illiterate. This has training implications. Also not too many more years to practice after training. TBA's are scattered often in remote villages. Difficult to identify and reach later for supervision, replenishment of kits.

III. Health Education Volunteers

- A. Need: To assist Project Health Education Assistants(HEA) in monitoring growth of children in villages and nutrition education.
- B. Role: Weigh children; record weights on weight card; explain status of child to mother; provide nutrition education.
- C. Qualifications: Demonstrated interest.
- D. Selection: By the HEA
- E. Training: On the job, in the village by the HEA.
- F. Supervision: By the HEA.
- G. Results: 50% of children under-5 have weight cards in area I and II. Many villages have weighing programs. Mothers do not adequately understand use of the cards.
- H. Problems: Maintaining availability of cards, scales. Assuring accuracy of weighing and recording by volunteers. Inadequate explanations of cards to mothers.

IV. Malaria prophylaxis distribution

- A. Need: To provide once monthly malaria prophylaxis to children under-10.
- B. Role: Distribute tablets to mothers of children under-6 and school children once a month.
- C. Qualifications: Literate (often a teacher)
- D. Selection: By Project Sanitarian or HEA.
- E. Training: Orientation at Danfa Health Center. Also on the job by project sanitarian.
- F. Supervisor: By Project sanitarian.
- G. Results: About 50% coverage of those under-6 each month and 80% coverage of school children.

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- H. Problems: Requires a visit each month by supervisor. Maintaining interest. Motivation of mothers. Village information. Turnover of volunteers.

V. Immunization Program

- A. Need: To have volunteers assist in motivating and informing villagers about mass immunization program. Also assist at time of immunization in crowd control, tally of vaccinations performed.
- B. Role: As above.
- C. Qualifications: Demonstrated interest.
- D. Selection: By HEA's and Health Center Staff
- E. Training: Orientation for one day at Danfa Health Center
- F. Supervision: HEA's and Health Center Staff
- G. Results: About 80% coverage of population by the program. Volunteers performed roles as planned.
- H. Problems: None.

VI: Women's Groups

- A. Need: To improve nutrition by interesting women in forming their own groups to demonstrate preparation of foods for better diet.
- B. Role: Usually a leader who organizes the group and schedules their meetings.
- C. Qualifications: Demonstrated interest
- D. Selection: Self-selected
- E. Training: None
- F. Supervision: HEA's or Community Health Nurses give demonstrations to these group.
- G. Results: About 7 villages have such groups. Effect on improvement on nutrition not known but new foods have been introduced into the diet in the area.

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