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# CONTRACT REPORT

To 4 March 1976

NEPAL/UNIVERSITY OF CALIFORNIA FP/MCH PROJECT

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USA

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ANNEX

1

CONTRACT REPORT

TO 4 March 1976

1.1 Introduction

This report covers the full two year period - 5 March 1974 thru 4 March 1976. It is designed to highlight the major accomplishments and some of the problems of the Berkeley Team in its efforts to technically assist the Government of Nepal in the Family Planning/Maternal Child Health Project.

As will be seen in the various substantive sections which follow a great number of project activities assisted by the Berkeley Team are presently functioning providing the ground work for accomplishment of the major objectives of our assistance program i.e., manpower development and Institutional change.

Although it is not specifically mentioned in the text of the report it should be obvious that a large number of administrative, research, field operations and other personnel who would not otherwise be employed in family planning/MCH are presently involved in a variety of activities designed to provide a highly experienced manpower pool for greater institutional change and development in future.

For example over eighty-five staff are presently engaged in the World Fertility Survey operating in 33 districts of the country. This group includes sixteen (mostly master's level) supervisors and interviewers who are highly qualified matriculates. These interviewers will also be used in coding and other analysis activities at the completion of the field work. It is intended that several of the top supervisors in this program will be absorbed by the project sometime in the future in continuing field research and program development activities.

Other manpower pools are presently being developed in the Family Health Laboratory under the direction of a Berkeley supported Research Officer and includes supervisory, field interview and program staff.

In Gurkha Fertility Survey we have again been able to employ very excellent staff for field studies and in addition have developed excellent working relationships with the Gurkha Organization. Depending upon the findings of the first two studies it may be possible to enlarge these efforts designed to determine the relationships between fertility and a host of factors including child survivorship, family financial security and the availability of adequate medical care. In addition we are finding many persons in the retired groups with skills in community work which could be employed in Government FP/MCH and Health Activities.

One of the major areas of concern in the changes being effected in experimental program development is that these new ways of doing things receive high level support from the administrative and managerial side of the staff both in the central office and in the Regional offices of the program. With this in mind we intend to employ short term consultants this coming summer to provide experience for Senior Staff in both sensitivity training programs and organizational development.

The magnitude of the changes taking place demand that a high priority be given to the needed administrative support through changes within organization which will support this new philosophy of a strong field structure with a goal of not only providing the know-how and supplies for family planning but to initiate actions compatible with social changes in health and beyond dependent primarily upon changes in behavior.

This major change represents the most important thrust of Berkeley assisted projects and again it is important point out that training of personnel well above the field level will be essential to develop the institutional support for this program model.

Many of the activities initiated with Berkeley Team assistance compliment the goals of manpower development and institutional change but it is quite clear that administrative agreement on

on change in the field. Changes in philosophy of the field structure occasion long time lags in the necessary institutional changes and behavioral changes within the central and regional staff to support them.

Examples of this would include the fact of a definitive study of the priority couple survey approach to determining appropriate individuals for family planning services. Despite an analysis of the various categories within the priority couple survey which demonstrated clearly that it was a priority established by the professionals that had little relationship to the acceptance by individuals of differing on family size and composition in the various FP Program activities of the project. The data show clearly that the proportion of adopters in the priority couples A, B, and C were essentially equal despite the fact that this system was established to assist of worker in determining which couples would be most likely to adopt family planning.

On the basis of this very simple study it was decided almost year ago to scrap the priority couple survey technique which utilize anywhere from one third to one half of the field workers time during his first year in the field. We were somewhat surprised recently to learn that newly employed health aides are continuing the priority couple survey which illustrates the lag period in the

implementation of agreed upon program changes in a system with poor managerial skills, communications and continued in-service training. To resolve this problem it has become necessary to discontinue distribution of any of the forms associated with the survey and it is hoped that this coming summer thru intensive inservice training of regional medical officers, family planning officers, intermediate supervisors, and health aides that the priority couples survey can finally be allowed to expire.

There are other examples of the lag time in implementation which relate to the ability of the central staff to translate decisions into action. The new service statistic system, for example, is another case in point where the field demonstration have shown quite clearly that new system is simpler more easily understood and much more effective in reporting field activities and yet to date we are still operating only in four experimental districts while awaiting the distribution of the recently printed forms for the new system.

Recruitment of new staff also is plagued with these kinds of delays. For example, a very well designed study was implemented about three years ago which demonstrated the effectiveness of panchayat based workers and in particular that more mature females would greatly strengthen the field activities of the FP/ICH Project. The evidence of female performance led to an agreement at the central level that more women would be recruited below the School leaving

Certificate level (SIC) and that a larger proportion of the workers should be recruited on contract rather than as full time government employees. A recent analysis of the trainees, however, presently in the three regional training centres shows this decision has not been fully implemented and that the older recruitment system which involves primarily young S.L.C. males still is in effect. It is hoped that the new director of the training division will assume greater responsibility in the recruitment process to insure that the policies of the project are fully implemented in this regard.

These kinds of problems point out the very great communication gap between some of the research findings and experimental approaches to problems such as recruitment which though successfully demonstrated in experimental areas are not quickly made known to the appropriate people in the field and implemented.

The recruitment, selection and training of field staff in the two experimental project there is of Dhanusha and Gorlcha at the district level proved to be a highly successful field procedure. It has been strongly recommended that this process be extended to other areas of the country when new staff are to be recruited and trained. At this time, however, there is apparently little commitment on the part of family planning officers, regional medical officers, and others to adopt these procedures.

The above discussion I think points out the real need for a much longer time frame if one is truly concerned with institutional change thru the experimental project/manpower development route. It is extremely difficult to effect changes in a traditional administrative hierarchy that is not accustomed to dealing with data and results of experimental projects in reaching more effective decisions concerning configurations of field staff in the implementation of program.

These "Second Generation" problems, however, are clear indications of progress in the developmental process. Changes in organizations are never effected gracefully. The Nepal FP/MCH Project is no exception to this rule. Despite these not unexpected delays and despite some of the obvious inefficiencies in supply, logistics and field operations we are very much encouraged by the direction of the project at the moment in taking appropriate steps to retrain staff and to deal with the behavioral side of administration management in a straight forward manner.

In a span of two years the accomplishments of the technically assisted projects within FP/MCH Program are not unimportant. There is a need, however, for continued stimulation and technical assistance thru the implementation stage if we are to gain even greater mileage from our activities in assisting government of Nepal. The fact is there are now several new program elements

which have been tested in the field and which are obviously superior to present program operation models. There is good support from Project Chief and new Deputy Chief for this philosophy of continued experimentation and program change based on findings of experimental training, delivery and survey research approaches to problems. We are all very much encouraged by the willingness of our colleagues to experiment with all types of program modifications and hope in the future that the time lag between research findings and implementation can be markedly reduced thru initiation of staff meetings special training programs and other managerial techniques within the FF/MCH Project.

Other observations in Berkeley assisted project development would include the successful build up of training faculty for the three functioning regional training centers of the country. This was accomplished primarily thru the retraining of the total faculty and the addition of several new faculty members.

It is of interest to note that project continues to give extremely high priority to training and that additional positions are being considered beyond the three new positions incorporated last year's budget.

The building of manpower thru experience in training, in research and in field operations is a method of technical assistance that we believe to be most useful to Nepal as the critical shortages of

these kinds of personnel are clearly a major barrier to effective program development, implementation and evaluation.

### Training

As will be seen in the very extensive section on training there are several major changes of great importance to the future success of this particular program element. The first event of some note is the resignation of Dr. Tara Johnson and the assumption on an acting basis of the Chief's position by Mr. Hem Hamal. Dr. Johnson was not in any way alienated by her decision to leave the project but instead departed on very good terms with project staff and Berkeley Team members. Tara went out of her way to make sure that we did not feel that we were any way involved in her decision as it was strictly personal reasons which lead to her resignation.

Under the direction of Mr. Hem Hamal training seems to have survived this change of leadership with little or no setback in program development. Mr. Hamal has been involved in the training course for family planning officers in Pokhara and undergoing the full process along with the other trainees. He is enthusiastic and quite capable of understanding the training philosophy. He is making considerable inputs from his own unique background in Information, Education and Communications Programs in Nepal. We believe that Hem Hamal as a counterpart solves one of the problems of technical assistance as his commitment and obvious skill will

lead to a very quick institutionalization of the training concepts and provide the necessary Nepali leadership in the future.

The three training centers in Nepalgunj, Patlaiya, and Dharan are proceeding in training of health aides at varying levels of efficiency and effectiveness. On balance, however, we are very pleased with the progress to date and particularly the enthusiastic reception of the new training concepts by trainers and trainees alike.

The experimental family planning officers training center in Pokhara was established on ad-hoc basis in order to create a trained family planning officer's staff in the field with understanding and new knowledge necessary to the program changes as envisioned in the present five year plan. It is important to mention again that in order to fully institutionalize these concepts we feel that training of central and regional staff is crucial in the immediate future.

With the ad-hoc center in Pokhara and functioning of the three regional center it appears that the targets of the first year and five year plan will be met as scheduled despite several delays in the process in past months.

In order to augment the achievement of targets Mr. Bhagwan Shrestha has been delegated to the retraining of two hundred health and

family planning workers which were also constitute an important part of the training targets.

On the whole the training program is achieving considerable recognition on the part of FP/MCH administrative heads and in addition by those in basic health services who are quite interested in the differences in the FP/MCH training and the basic health services training which continued to be class room and textbook oriented without much concern for the behavioral and social changes elements potentially inherent in the extensive health system being implemented in the present five year plan.

#### Field Methodologies

The delays in initiating the field experimental delivery projects have now been cancelled out by extremely well executed recruitment, selection and training programs and the immediate implementation thereafter of the experimental delivery projects themselves. The two experimental district projects seem to be proceeding quite well and are being carefully evaluated with an eye toward major program modifications for the total country in the future.

Several of the elements of the experimental projects have already proven to be successful enough to be considered as new program elements of the overall project. As mentioned earlier the transition from field demonstration findings to overall project

policy is still not as rapid as it should be but nonetheless the basic philosophy underlying the new programs seems to be well received by all involved.

I think it is important here to note that two regional medical officers and two district family planning officers are intimately involved in these demonstrations and that they have assumed administrative/managerial responsibility for these efforts in addition to their other assigned duties. We have found it necessary in one case to augment the clerical staff in order to meet the increased work load but other than that it appears a very large number of the personnel involved in the demonstrations will be funded in next year's budget as the panchayat based program continues to expand and the experimental district panchayat are included in the overall plan.

The two health laboratories in Dhulikhel and Gokarna are well into their planned implementation. They are receiving greater attention from the Project Chief, the Chief of Clinical Division and the concerned district family planning officer. Agreements are in process to completely staff the field operations in these areas utilizing existing FP/MCH personnel and to consider future institutionalization of the health laboratory concept in a year or two within the time frame of the present five year plan.

World Fertility and District Survey Program

As one indication of the growing capability of the research and evaluation division of the project it is most encouraging to note that they were able to conduct four district level surveys in less than two months. This was a unique, cooperative venture between the experimental program and W.F.S. Joint planning, budgeting and implementation of these two surveys was very complicated administratively, logistically and otherwise. A very effective articulation between the base line surveys in experimental districts and the training phase of the World Fertility Survey was worked out under the direction of Mr. Jayanti Tuladhar. In essence the World Fertility Survey's Supervisors and Interviewers received a great deal of their early experience and training while conducting base-line survey on four experimental projects. We were able to fund W.F.S. staff during periods of time when they would have been inactive in the World Fertility Survey and in doing so employed them in accomplishment of experimental district baselines. Later the same personnel were retrained in the World Fertility Survey and are presently in the field in all of the districts selected part of the sample for this gigantic field effort.

I think we would note here that the program has proceeded to date without a hitch and that the quality of the field work is outstanding. The ultimate goal of these activities is the development of Nepali.

capability at all levels of field operations and that these manpower pools will be crucial in future development of several institutions of the Nepali Government.

#### Basic Health Services

Since the "interface" meetings with the basic health services early this year we have been proceeding along agreed upon courses of development with a minimum of friction and misunderstanding which characterized some of the early relationships between the project and integrated health services.

Plans are in the mill for another major meeting of the two groups this coming monsoon time. At that time perhaps an even more effective articulation can be developed between the two emerging systems. At the end of the first interface meetings it was agreed that the tasks and geographic locations of two efforts were sufficiently diverse as to obviate the need for intimate coordination at this time but as the basic health services expanded that further arrangements concerning the supervision of the FP/MCH elements within basic health services, training, and evaluation issues would need to be detailed in order to smooth out field operations. As things stand now there are two distinct training programs; field services statistics programs; and a different philosophy in the need for baselines for evaluation. These issues will have to be resolved in the not too distant future if we are to have any real

measures of what was happening in field in both integrated areas, newly integrated health posts in non-integrated districts as well as the FP/MCH areas presently operating under the vertical program.

#### Gurkha Fertility Survey

The one major revolting development to date in our project concerned the loss of over seven hundred questionnaires which were completed in Pokhara as part of the second phase of the Gurkha Fertility Survey. No one seems to know exactly what happened to the questionnaires but it appears that they were sold as scrap paper by someone in the supply unit. It is interesting to note here that this study represents an exact replication of a previous study conducted in Dacca, East Pakistan over ten years ago when about the same number completed questionnaires were sold by the chowkidar and sweeper to be made into paper bags for the bazaar.

On the more serious and productive side of the survey we have been quite encouraged by the response of National Planning Commission Members Dr. Saiju, and the newly appointed Minister of Education, Dr. Harka Bahadur Gurung as to the important of this particular venture. With continued support both from the British Gurkhas and the Project Chief as well as several number of research evaluation unit we have extended the study to the East at the time and are presently underway in field operations.

The study design was changed somewhat as we decided to interview pensioners and widows receiving benefits in Dharan and then to extend the sample by visiting several of the Gurkha Areas in the East to interview upto two hundred widows for the child spacing study and upto another four to five hundred men for the Gurkha Fertility Survey.

These efforts will be followed by an analysis of the records of those interviewed. We will do this during the monsoon season when pension paying and other activities of the Dharan Camp are at a minimum level. We have been assured of complete cooperation by Brigadier General Decker and his Gurkha staff as well as Colonel Macdonald and Acting Captain Gurung in the West in Paklihawa and Pokhara, respectively.

The data gathering portion of the study will be completed prior to the end of this year and a tentative analysis plan has already been discussed. The extended data gathering will include interviews and record work both in Paklihawa and in Pokhara beginning in the middle of May.

A brief discussion of the purposes of the studies and the questionnaires are included as annex "A".

Policy Development

There is little to report in the areas of the policy development proposal except say that is now included as part of the Nepal AID Mission Project Paper which is presently under discussion in Nepal. As it stands now we will add a fifth member to the Team for the last eighteen months period of our contract in order to provide the required technical assistance as outlined in the proposal.

A copy of the project paper has been sent to Berkeley and you will note that the policy element has received considerable priority both budgetarily, in staffing and in fellowships.

As reported in the previous quarterly report we attempted to gain some commitment from Ford Foundation and Population Council in regard to provision technical assistance to this proposal but later negotiation made it clear that AID would like to have it attached to our project as we had initially discussed several months ago.

A related activity to policy development concerned our desire to conduct one workshop and possibly two this coming summer to analyze the existing papers and studies on population policy as a prelude to a conference of twenty senior Nepali leaders concerned with the development of rational alternatives based on the analysis of existing data. We have already requested Berkeley to

provide us with technical assistance for this venture and we are even in hopes that Lee Bean may be able to return to assist in this regard.

Miscellaneous

In recent discussion with the Project Chief it is clear that he fully supports the need for short term technical assistance this coming summer in a number of the activities discussed in great detail with Bob Biller during his visit.

One of the crucial short term consultancies as we see it is the provision of an expert in sensitivity training and organizational development to work with the project staff at the central level and regional level of the program. We have suggested that Bob Biller might be considered but are certainly open to other candidates.

The seminar for policy development we feel needs of additional staff to assist the major consultant as many of us will be away for fairly long periods of time during the summer months. Ray Carlaw may well be off to Ottawa for the International Union Meeting and I could conceivably attend the same meeting. This would leave Jack Nelson whose field responsibilities are quite heavy and Jack Stoessel who will be engaged in the analysis of the district surveys and the World Fertility Survey.

This being case we do see the need for short term consultants in the above mentioned activities as well as the possibility of a initial visit by Andy Fisher or other faculty members to begin to explore the possibility of the evaluation of the training projects in the future.

1.2 Personnel as of 5th of March, 1976

U.C. Berkeley Staff

Chief of Party, H.C. Gustafson, Dr. P. H., took up duties	Nov. 1, 1974
Demographer/Sociologist, J. Stoeckel, Ph. D., took up duties	March 1, 1974
Campus Coordinator, R. Miller, Dr. P. H., took up duties	March 5, 1974
Experimental Program Specialist, R.W. Carlaw, Dr. P.H. took up duties	Sept. 16, 1974
Training/Field Operations Specialist, J. H. Nelson, M.P.H. took up duties	Feb. 1, 1975

Local Nepali Staff

Senior Administrative Assistant, Dhurba P. Adhikari, took up duties	Sept. 26, 1975
Secretary/Administrative Assistant, Bishnu Maharjan, took up duties	Dec. 17, 1974
Clerk/Typist, Bhairab Das Pradhan, took up duties	Oct. 3, 1975
Driver, Nani Kazi Thapa, took up duties	Dec. 2, 1974

Driver, Badri Narayan Manandhar, took up duties March 10, 1975

Driver, Kiran Thapa (in payroll)  
took up duties April 1, 1976

Peon, Ram Bahadur Singh, took up duties Dec. 4, 1974

Mr. Bal Prasad Sharma's A/Specialist contract was terminated from March 24, 1976 and part time driver, Mr. Kiran Thapa was hired on contract (in payroll).

### 1.3 Staff Movements

#### Dr. Harold C. Gustafson

November 30, 1975 to December 1, 1975	2 days	Patalaiya and Surkhet
December 14, 1975 to December 12, 1975	4 days	Delhi
December 21, 1975 to December 25, 1975	5 days	Patalaiya
January 11, 1976 to January 13, 1976	3 days	Pokhara
January 15, 1976 to January 19, 1976	5 days	Dharan
January 21, 1976 to January 22, 1976	2 days	Gorkha
January 25, 1976 to February 3, 1976	10 days	Allahabad, Delhi, Bangalore
February 8, 1976 to February 11, 1976	4 days	Pokhara
February 21, 1976 to February 25, 1976	5 days	Bharatpur and Pokhara
Total	<u>40 days</u>	

#### Dr. Raymond W. Carlaw

December 7, 1975 to December 10, 1975	3 days	Gorkha
December 21, 1975 to December 24, 1975	4 days	Gorkha

January 1, 1976	to January 4, 1976	4 days	Gorkha
January 5, 1976	to January 7, 1976	3 days	Janakpur
January 13, 1976	to January 16, 1976	4 days	Pokhara
January 21, 1976	to January 24, 1976	4 days	Gorkha
February 2, 1976	to February 6, 1976	5 days	Dhanukha
February 13, 1976	to February 14, 1976	2 days	Gorkha
February 16, 1976	to February 17, 1976	2 days	Dhanukha
March 1, 1976	to March 2, 1976	2 days	Pokhara
	Total	<u>33 days</u>	

Dr. John Stoessel

January 15, 1976	to January 19, 1976	5 days	Gorkha, Syangja & Bhairawa
January 20, 1976	to January 21, 1976	2 days	Janakpur
February 2, 1976	to February 5, 1976	4 days	Bhairawa & Syangja
February 29, 1976	to March 2, 1976	3 days	Pokhara
	Total	<u>14 days</u>	

Mr. John H. Nelson

November 15, 1975	to November 22, 1975	8 days	Delhi
December 7, 1975	to December 9, 1975	3 days	Patalaiya
December 11, 1975	to December 12, 1975	2 days	Pokhara
December 29, 1975	to December 30, 1975	2 days	Pokhara
January 9, 1976	to January 20, 1976	12 days	Pokhara
January 22, 1976	to January 24, 1976	3 days	Gorkha

January 26, 1976 to January 30, 1976	5 days	Pokhara
February 7, 1976 to February 17, 1976	11 days	Pokhara
February 22, 1976 to March 6, 1976	14 days	Pokhara
Total	<u>60 days</u>	

#### 1.4 Visitors

<u>Date</u>	<u>Name</u>	<u>Organization</u>
November, 1975	Mr. Christopher Scott	World Fertility Survey
"	Dr. Chidambarum	World Fertility Survey
"	Dr. Richard Harding	Johns-Hopkins University
"	Mr. Clifford Bennett	USAID-Regional Auditor
"	Mr. Richard Derrick	USAID-Regional Auditor
"	Mr. Lincoln Day	Demographer, Asstt. National University
"	Mr. Anthony Drexler	F.P.I.A. New York
"	Mr. John Davies	P.S.I.
"	Dr. Duane Smith	Management Sciences for Health
"	Mr. Joel Lamstein	Management Sciences for Health
"	Dr. Ernst Lauridsen	Management Sciences for Health
December, 1975	Lee Bean	Utah University
January, 1976	Tom Mayer and Hill Mayer	Orthopedic Surgeon Health Educator

February, 1976	Bert Hirshhorn	M.S.H
"	John Stevens	British Medical Trust
"	Agnes Whitfield	W.F.S.
"	Willard Boynton	AID Washington
"	Ruth Dixon	U.C. Davis
"	Laurie Lewis	W.F.S.
March 2, 1976	Petra Oainaki	UNFPA
March 2, 1976	Paul Micou	UNFPA
March 3, 1976	Don McLean	Pop Council
March, 1976	Bob Miller	Berkeley
"	Marvin Chernic	AID Washington
"	Will Bateson	Agricultural Dev. Council

### 1.5 Conferences

Workshop on Health Planning for Senior Health Personnel, March 3 to 6, 1976 - Dr. Carlaw and Dr. Gustafson.

### 2. Purposes of the Contract

The purposes of the contract remain unchanged except for the proposed addition of the policy development elements previously discussed.

### 3. Administrative Structure

The administrative structure of the project has undergone several changes since the last report period. Most notable has been the resignation of Dr. Tara Johnson as previously mentioned and most recently the appointment of Dr. Purushotam Narayan Shrestha, Ex-Smallpox Chief, as Deputy Chief.

Within the Berkeley Team structure we have come to the termination point of Mr. B. P. Sharma as Audio-visual Specialist and he is presently on a personal contract project with the local AID Mission to finish several of the films started while working with us.

### 4. Contract Arrangements

#### 4.1 Personnel

Since the date of the last report there have been no changes in the plans of Nepal based Berkeley Team concerning the length of their contract. As you may recall the Chief of Party wishes to depart sometime in November or December depending upon personal arrangements; Dr. Stoeckel has agreed to extend until March 5, 1977 and might consider a short extension beyond that to come into phase with the academic year; Mr. Jack Nelson has agreed to one year extension to the first of February 1977 but might consider a short extension if it becomes necessary and Dr. Ray Carlaw has agreed to stay on as the experimental project specialist to the end of contract.

The pressing problems then in regard to personnel center around replacement of the Chief of Party and possible early replacements of the Sociologist/Demographer and Training Specialist. These replacements of course in addition to recruitment of the policy development advisor as an addition to our existing staff.

#### 4.2 Finances

The Berkeley assisted projects continued to function on the advance of two hundred and fifty-eight thousand rupees provided by the Government of Nepal. To date we have spent all but about forty-two thousand of these rupees and estimate that we have less than one month of operation remaining at the present expenditure level.

We are very much concerned that an additional delay in contract extension could place us in the same embarrassing position which we found ourselves several months ago when we had to negotiate and advance from Dr. Pande to continue our ongoing activities. This, of course, would be highly complicated in that it would mean the release of funds when they are available in the next Nepali fiscal year. Usually this occurs near the end of August and often as late as the middle of September. This, of course, would mean we would be completely without funds in less than one month from today through August.

In any case we must hold the recently sanctioned two hundred fifty-eight thousand rupees in the bank so that we can repay Dr. Pande at

a moment's notice. He is unable to hold funds on any accounts including ours after the fifteenth of July and, of course, would need several months of lead time in order to expand these funds effectively for his program.

#### 4.3 Office Space

As of 29 December 1975 we have been provided office space in the newly constructed FP/MCH project office at Ram Shah Path. We are somewhat crowded and are presently negotiating for more adequate spaces for Dr. Carlaw, Jack Nelson and a fairly large number of Nepali staff funded under Berkeley Projects.

Dr. Pande has been very cooperative in this regard and it appears we have no problems in relocating staff.

When project is extended and the fifth position filled we will possibly need additional personnel to handle the increased work load. At that time our office space problem could become acute.

#### 4.4 Transport

We continue to operate a fleet of four aged and dilapidated vehicles but with good maintenance and luck we have been able to function quite effectively in recent months. It was necessary to temporarily rent a vehicle for the Health Laboratory but with the return of our fourth vehicle from World Fertility Survey the bus is no longer needed.

Considering purchase of new vehicles we have come to the conclusion that we want at least one four wheel drive vehicle capable of carrying 12 persons. This in addition to a Jeep Wagoneer type vehicle which may or may not be able to carry that number of persons. If worse comes to worse I believe we could manage to keep one or two older vehicles operating and accept two wagoneer type machines which would be somewhat less than adequate but nonetheless a good compromise.

#### 4.5 Office Staff

There have been very few changes in our office staff since the period of the last report. The major change involves the termination of Mr. B. P. Sharma as Audio-visual specialist.

In addition of this we have regularized our third driver changing his status to an employee rather than a worker on a daily wage basis.

The office staff continue to function at the highly acceptable and efficient manner and we are quite pleased with the performance.

#### 4.6 Hours of Work

The office continued to function 6 days per week on a 9 to 5 basis, the Nepali summer working hours.

5. Work Plan

The sections which follow detail to a great extent the accomplishment of the Berkeley assisted Projects during the first two years of the contract. A short synopsis of the various activities will not be necessary in this section of the report as they are covered most adequately in the following text.

It is important to note, however, that most of the activities listed on the work plan are on schedule despite major delays discussed in detail in last quarterly report.

There are exceptions to the projects listed in the work plan and the present operations do mainly to new arrangements in regard to item concerning improvement of the supply system, the lower priority of the commercial distribution and the experimental project in mass communication. These projects are discussed in some detail in the body of the report. Suffice it to say that these supply problem will not be handled by a resident Berkeley advisor but we will use a short term advisor and this procedure is already in progress.

The commercial distribution pilot project has lowered in priority primarily due to the fact that a request for proposal (REP) is presently underway and we are expecting a contract or to handle this particular program element on a much wider scale than we are envisaged in our work plan.

In the case of the mass communication program we can only say that the absence of an IE&C director and the complete utilization of his time in training since his return has brought this project to a standstill.

One item which is not covered in the report is in regard to the Radio reporting system and we are pleased to report at this time that "the file is moving" and there is active negotiation between the project and the national tele-communications board to finalize an agreement. Funds are available through USAID and equipment could be procured in a short period of time.

#### Policy Development

In addition to previous discussion concerning the additional team member there has been some progress in the development of the National Population Policy. The board has recommended several major programs most important to Nepal development including school sex education, population awareness and an examination of the laws of the country to determine how they might be modified to be less pronatalist.

## 6. FP/MCH Program

### 6.1 Program Development

The Advisor concerned with experimental research and program development arrived in country on October 11, 1974. At that time the five year plan for the period 1975-1980 had already approved by the Minister of Health and had been submitted to the National Planning Commission.

By December 1974, the Chief of Party and E. P. Specialist had convinced the Project Chief of the need to review the five year plan in the light of new approaches and program suggestions made. The Project Chief therefore undertook the radical step of recalling the 5 year plan, and of seeking the assistance of the Berkeley Team in recasting the plan and the budget. This was done Over December and January and three principal changes were incorporated.

- 1) The plan was revised against feasible demographic targets.
- 2) The service structure anticipated a village based door-to-door delivery service.
- 3) The budget called for a heavy expenditure in the first year of operation in order to establish a critical mass of effective contraceptors which could be maintained throughout the five year period. This heavy initial expenditure (25.4% of the projected 5 year budget) also allowed for the plan by the Integrated Health Service to assume full responsibility for FP/MCH services in 42 of the 75 districts in Nepal by the end of the 5 year period.

Another major aspect of the new 5 year plan called for the rapid development of three Regional Training Centers and the abolition of the single National Training Center in Kathmandu.

The demographic targets were simple. While no accurate figures exist for Nepal's population it was generally agreed that the crude birth rate (C.B.R.) was about 42 per thousand. The target was to reduce this by one point per year over four years to 38 per thousand, allowing one year for development of a critical mass of contraceptors. The contraceptive mix called for an annual target of 65,000 effective users in the following proportions:

Pills	44,000
I.U.D.	7,000
Depo Provera	2,000
Laparoscopy	2,000
Vasectomy	<u>10,000</u>
	65,000

The above targets were approximately double that achieved the previous year, but were feasible given a service program which emphasized door-to-door delivery and good follow up.

The Mother and Child Health (M.C.H.) target was based on the accepted figure for the Infant Mortality Rate of about 200 per 1,000 live births. The target called for a reduction in the I.M.R. by 25% (from 200 to 150) over the 5-year period through a program of family planning, rehydration for diarrhoea, immunization, and education of the mother in the use of locally available high protein foods for herself and her children. This

target also called for more organized effort in M.C.H. activity with a wider coverage than had been achieved in the past.

### Counterparts

The E. P. Specialist did not and does not have a designated counterpart. He works with the Project Chief and Deputy Chief (when there was a Deputy Chief in office). His major counterpart is the Chief of Division, Services, but several other division Chiefs have also been functional counterparts for specific activities. The Regional Medical Officers in two of the four regions of the country have been de facto counterparts for several activities.

This situation has positive and negative elements. In an institution in which there is no general staff meeting between the advisory group and the executive group of the host country it allows for a breadth of communication and involvement of several senior staff. While this is a positive factor in development it creates its own set of difficulties in that a degree of communication is assumed between host country executives which often does not take place, and explanations by the advisor can be interpreted wrongly.

Another most serious implication of this loose structure is the tendency for one executive to pass on responsibility to another and for the advisor to stand at the end of the line in this

process. It is sometimes easier to accept program responsibility than to go back through a series of relationships and seek a firm directive or decision from a host country executive.

On balance however the counterpart relationship appears to be satisfactory. Personal communications and interaction is warm and open with all those who form counterparts. Program development and experimental research development is building rapidly. The only serious question raised concerns the development of the institutional capacity and the interdivisional communication. There is still much work to be done in this area.

#### Development Projects

While the E. P. Specialist is called upon to assist with a wide variety of institutional tasks (budget, annual program plan, drug orders etc.) the major focus has been on three concerns - developmental projects, experimental research projects, and projects which provide basic data for future planning.

Developmental projects concern the expansion or organization of activities which are already reorganized as specific functions of the FP/MCH Project. Those the E. P. Specialist has been associated with include the

- 1 -- Immunization development.
- 2 - Injectable progressive project.
- 3 - I.U.D. insertion project.
- 4 - Vasectomy development.
- 5 - Laparoscopy development.
- 6 -- Data recording and reporting System.
- 7 - Service Division development.

The above projects are in various stages of completion as at the end of this contract period.

1. The immunization development involves three aspects
  - a) development of an immunization plan for under 5's in Nepal, involving D.P.T., B.C.G. and smallpox, 200,000 children annually.
  - b) development of a plan for refrigerated storage of vaccine which would be accessible to districts.
  - c) development of a record card of immunization given, to be retained by the mother.

This development has been worked out with the Chief of Services Division.

## 2. Injectable Progesterone

Supplies of depo provera have been difficult to obtain. In anticipation of extending the existing service from 100 clients to 2,000 clients three steps were taken.

- a) a plan was developed to provide depo-provera to a limited number of women in five centers - a total of 2,000 in all.
- b) Efforts were made to obtain 24,000 150 mg doses to cover needs for 3 years.

c) Dr. Kokila Vaidya made a short study tour (Nov-Dec, 1975) to Dr. E. McDaniels at the buclorminch hospital in Cheag Mai, Thailand, and to Singapore to gain a better understanding of selection and side effects of injectable progesterone and methods used in these places. Later Dr. McDaniels was able to visit Nepal and gave considerable help in obtaining sufficient initial supplies of the injectable from I.P.P.F. Services should begin in three weeks. This project was developed with the Chief of the Services Division.

### 3. I.U.D. Insertion Project

While the concept of nurses inserting I.U.D.s had been considered for some time it had not been possible to resolve certain problems. The whole approach was re-considered and classes of 4 to 6 nurses have been held for a two month period, calling for a minimum of 25 supervised insertions. The course emphasizes contraindications for I.U.D. Thus far 9 people have been trained and this training will continue until all 35 nurses in the Project have authority to insert I.U.D.s. It is hoped that approval will be given to the training of Assistant Nurse Midwives who have had two years of high quality training at the Institute of Medicine. This would enlarge the I.U.D. Service capacity greatly.

4. Vasectomy

While all physicians in the Kingdom are encouraged through a Rs.20 incentive per case to per vasectomies as requested it is found that many physicians with no special training in surgery, or with limited medical experience, are not completely familiar with the most recent techniques in vasectomy. Some post operative problems have occurred and this has the effect of reducing the reputation and the popularity of vasectomy as a contraceptive.

Nepal has approximately 350 medical doctors of all specialities. Of these about 100 work outside of the Kathmandu Valley. Surgical seminars have been planned for those physicians who have limited experience in vasectomy. These seminars call for 4-5 days of review and demonstration by a Zonal surgeon with opportunity for seminar members to demonstrate their surgical skill to the surgeon on about 10 men during the course of the seminar. As of the end of the contract period two seminars had been arranged involving 14 physicians. This project was developed by the Chief, Services Division, The Chief, Surgical Division and the Berkeley E. P. Specialist.

5. Laparoscopy

Dr. Kanti Giri has established an international reputation for her pioneer work in providing

laparoscopy in a camp setting and she has performed over 2,000 laparoscopies. The demand for this surgical contraceptive is high. To meet demand more effectively three female gynecologists were sent on short term fellowships to study under Professor Lean in Singapore for a month.

The mobile team for laparoscopy requires a team of 9 people including the gynecologist surgeon. Three separate teams have been developed and at times three of the four surgeons are conducting laparoscopy camps simultaneously.

Some organizational problems require resolution but this is a most popular service and demand still exceeds supply.

This development project has been organized by the Chief, Surgical Division, and the Chief of Party, Berkeley Team.

6. Data Recording and Reporting System

The data recording and reporting system was complex, requiring 16 registers, 4 books and 6 cards. A revised system has been developed requiring 6 registers and 4 cards. Time required for records is reduced from approximately 40% to about 10% of working time, and the cost of paper is reduced to 25% of the previous outlay. The revised system has been tested for several months,

and minor modifications introduced. At the present time it operates in four districts and is to be extended to the nation within one to two months.

The system was developed by the Chief, Planning & Evaluation Division and the E. P. Specialist, Berkeley Team.

#### Services Division Development

At this time the Services division has the least manpower of the six divisions into which the FP/MCH Headquarters is divided, and it attracts less than 1% of the headquarters budget. An organogram for an effectively organized division complete with job descriptions for all officers has been prepared for submission to the Project Chief.

This was done by the Chief, Services Division with the E. P. Specialist, Berkeley Team.

#### Experimental Projects

There are eight experimental Projects (E. P.) planned or in operation. They are

1. Panchayat FP/MCH Services Project
2. Family Health Laboratory
3. Mass Media Impact Project
4. Use of Traditional Practitioners Project
5. Use of incentives Project
6. Commercial Contraceptives Project
7. Maternal Iron Deficiency Anaemia Project
8. Rehydration Project

1. Panchayat FP/MCH Services

While a policy decision has already been taken to bring services to families from a panchayat base as well as from clinics there are many questions still not answered in the provision of this service. Some of the immediate questions are:

- a) Who is the most effective worker in the panchayat setting?  
(Man, woman, older, younger, husband/wife team etc.)
- b) What type of initial visit gives best acceptor rates?  
(Half hour, one hour, or shorter).
- c) What pattern of follow-up visit gives best continuing user behavior?  
(Weekly, two weekly, monthly, etc.)
- d) Can a woman be educated to care for her children's health in nutrition, environment, and rehydration for diarrhoea?
- e) What is the impact of M.C.H. service delivery on FP service delivery?  
(Rehydration, Nutrition education, Immunization).
- f) Is better mother and child health through family planning a motivational influence?
- g) Can a health aide be more effective if placed in their own village, working from their own home?
- h) What is the optimum pattern and style of supervision?
- i) Given optimum supervision is the panchayat based health aide more effective than a clinic based health aide?

- j) What is the relative cost effectiveness of clinic and panchayat workers?
- k) What is the optimum number of continuing users of contraceptive pills that can be adequately cared for by a health aide in clinic or panchayat?
- l) Can depots be set up in villages from which pills and condoms may be issued and recorded, without utilizing health aides?

Two districts have been taken as the laboratories for this study, involving 24 Panchayats (clusters of villages forming a political unit of about 3,000 people). 34 health aides (18 of whom are women) in these panchayats are supervised by 8 supervisors. Each district is under the direction of a Family Planning Officer who is district director of FP/MCH services and these two officers are assisted by one Research Officer who divides his time between both districts. This is a two year project but preliminary data will be available after 6 months. At the time of writing one district laboratory was underway and the training of staff for the second district was almost complete.

The 24 panchayats will be compared internally, and effectiveness will also be compared with those of established clinics within the districts and with the effectiveness of new clinics in the areas.

One of the spin-offs from this experiment has been the development of a district training model. All health

aides were recruited from panchayats pre-selected as base panchayats within the district. Supervisors were recruited from within the district. A building sufficiently large to provide dormitory and classroom space was rented for the six week period of the training. Two trainers (a man and a woman) moved in with the trainees and undertook intensive training beginning at 8 am and running to 9:30 p.m. daily for seven days of each week. There were breaks during the day so that only 8 hours was spent in actual training each day but a total of 240 hours was given in one calendar month. The training was largely experimental. Many of the trainees had not held a job before and several were older women with limited ability in literacy. The district team training experiential philosophy was enhanced by the attendance of the FP/MCH district director at one or two sessions each day. Morale was high, learning appeared to be effective, and there was no absenteeism despite the fact that several women had nursing infants or young children.

This Project was organized by the Chief, Services Division, the Regional Medical Officers for the Western and Central Regions and the E. P. Specialist, Berkeley Team.

#### Family Health Laboratory

A K.A.P./Fertility Survey is underway as a base line for two populations of 10,000 people each. After the K.A.P. Survey a

Health Survey will be undertaken on mothers and children to determine levels of health and nutrition. When completed, records on mothers and children under 5 years will be extracted. One population will form the experimental group with model FP/MCH services applied. All services and educational inputs will be recorded by family. After 12 months and after 24 months a second and third health survey will be conducted of both populations, the inputs analyzed, and comparisons made. This is a complex survey and is under the immediate direction of a highly competent Research Officer.

The Laboratory seeks to demonstrate the effect of good health and family planning services on the health of mothers and children. It was organized and set up by the Chief, Services Division, the Regional Medical Officer, Central Region, and the E. P. Specialist, Berkeley Team.

#### Mass Media Impact Project

While some planning is under way there is no target date for implementation of this project. In its present form the low literacy rate of Nepal is recognized, as is the powerful national radio station. The Project will probably focus on measuring the knowledge/behavior impact of three or four different approaches to radio programming in family planning. After a suitable period (6 - 12 months) impact of F. P. programs delivered through a type of village public address

system will be assessed and it is expected that results will provide guidance in setting up a high impact national broadcasting program in family planning. This is under discussion between the Chief, IE&C Division and the E. P. Specialist, Berkeley Team.

#### Use of Traditional Practitioners

A series of four training courses have been held for traditional midwives. These were visited by Her Majesty, the Queen, and attracted wide attention. No evaluation of this training has been done but it was given for 5 days only and was only a brief introduction. Approximately 120 women took part.

It is planned to modify this scheme considerably by placing midwives (traditional) with ANMs for 30 to 40 days so that they may learn experimentally from the women trained in scientific medicines. Other traditional practitioners who might be of help are the herb doctors, and the spiritual healers. They are usually of good reputation and could become a positive influence for FP/MCH in their area. The second phase of this project has not yet been initiated.

This project is under the direction of the FP/MCH Project Chief, the Chief, Services Division, assisted by the Berkeley Team.

Incentives Project

Various possibilities for incentives to motivators, acceptors, commenters, service teams and district staff has been discussed at the executive and policy levels, but as at the end of this contract period there was an apparent reluctance to go beyond the existing incentive scheme. This provides for payments of Rs. 20 per case to physicians performing laparoscopy and vasectomy and Rs. 5 per case to physicians inserting I.U.D.s. This costs approximately Rs. 265,000 per year and any extension of incentives beyond physicians would almost double the annual commitment. The subject is still under active consideration by the Project Chief and Family Planning Board.

Commercial Distribution of Contraceptives Project

This project is also in the incipient stages. Some work had been done in this area by the Division Chief of the I.E.&C. division and by one of the Regional Medical Officers. However, their approaches were not institutionalized nor was the research conclusive. There is a plan to place condoms (and pills if current constraints can be lifted) into the retail outlets in selected villages in two districts. Problems of supply, packaging and price still have to be resolved. It is noted that condoms form an excellent educational introduction to the concept of controlling fertility and of sex for pleasure rather than for procreation. While outlets are restricted to

clinics and health posts which are often far from the consumers the use and popularity (plus the educational effect) is limited. This experimental project could also suggest avenues to reduce the costs and logistical difficulties of the government supported distribution system.

#### Maternal Iron Deficiency Anaemia Project

There is no firm data on types of maternal anaemia in Nepal but it is presumed that a significant number of women are anaemic and that most of this anaemia is due to iron deficiency.

Field workers are being trained to use the Tallquist Scale for haemoglobin estimation. Those women with less than 9.4 gms per cent of Hb are provided with iron tablets and retested after 2 months. The important aspects of this service however relate to the educational components.

- a) in discussion women are informed that multiple child-birth, and poor diet are probably causes of low hb.
  - b) Women are informed of iron rich foods grown locally.
  - c) Women are encouraged to take greater interest in their own health and by extension health of their family.
- They are given a card on which their haemoglobin level is plotted against a desirable level and this card is used as an educational tool.

#### Rehydration

It is estimated that approximately 50,000 children die from diarrhoea in Nepal each year. Much of this could be

prevented by rehydration therapy. Royal Drugs Ltd., Nepal produces a rehydration package under the label R-D Sol. This is being tested for acceptance on a door-to-door delivery system. The mother of a diarrhoeal infant goes through the steps of preparing the rehydration solution using her own utensils. She then gives the fluid to her child, all under the supervision of the field worker.

Two questions are being tested. Is the mother capable of providing rehydration therapy for her child to the extent that it will survive the attack of diarrhoea? And secondly will this experience have an influence on acceptance of other forms of health responsibility, especially the planning of her pregnancies?

##### 5. Basic Data Projects

Several projects do not have a direct application in the services aspects of the FP/MCH program. They are however essential to future planning. Such projects include

- 1) An analysis of field worker performance.
- 2) A survey of Fertility and of Morbidity and Mortality in children under 5.
- 3) A survey of the fertility of the special group who are receiving pensions from the British Military.
- 4) A survey of child spacing patterns and the differential survival of children.
- 5) A survey of the effect on pill use of having only one cycle in the house or 6 or more cycles of oral pills in the house.

## 7. Manpower Development

### 7.1 In-country Training

Despite many difficulties not uncommon in bringing technical change to developing countries, the training program of the Project is taking shape. Eleven reasonably well-qualified trainers, of an original 12\* who were trained, are now in position and functioning at three Regional Training Centers -- one previously established and two newly-established. The training of health aides and field supervisors to take active roles in the new field structure designed for the FP/MCH Project's 5th Five-Year Plan is proceeding with only minor difficulties at each of the Centers. Six District Family Planning Officers -- the critically important middle managers of the program -- have undergone eight weeks of training in an experimental staff-development program set up especially for this level of worker. Eight more officers will begin the same training on March 16th. Test curricula for health aides and supervisors and for District Family Planning Officers are constructed and in use at the training centers. If field personnel can be successfully recruited and sent to the training centers in time to meet the various course schedules, there is no reason to believe the immediate manpower needs of the Project cannot be realized.

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\* Originally nine trainers were trained for the Regional Training Center faculty positions. Nearly a year later, in January-February, 1976, three more were trained (along with the first group of District Family Planning Officers) with the expectation that they would be approved for permanent faculty positions by the Family Planning Advisory Board, beginning next fiscal year. Currently, each of them is in a different training center getting on-the-job training under experienced trainers.

Training of Trainers

The Training and Field Operations Specialist arrived in Nepal to take up his duties on February 23, 1975. At that time, he was informed by the then Project Chief, Dr. Y. N. Sharma, and the Project Deputy Chief, Dr. Badri Raj Pande, that training was of the highest priority. The urgent need was to mount a crash program to prepare nine trainers to take faculty positions in three Regional Training Centers to be fully operational by the start of the 5th Five-Year Plan. Prior to the arrival of the Training Specialist, the decision had been made to regionalize training and to close down the Project's National Training Center in Kathmandu.\*

The Project's training staff consisted of the Training Chief, Dr. Tara Johnson Shrestha, and three Training Officers, Mr. Bhagwan Shrestha, Mr. Push Pal Shakya and Mr. Jyoti Shrestha -- the latter two located at the only then-operational Regional Training Center at Nepalgang. Mr. Jyoti was functioning in the dual role of trainer and Family Planning Officer for Banke District.

Dr. Johnson and Mr. Bhagwan, along with a female warden, Miss Rama Ranjit, and a Section Officer (Administration), Mr. Manu Rana, performed their duties at Kathmandu. One or two public health nurses, assigned to training as needed by the Division of Clinic Services, and several training assistants were also in evidence.

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\* This Center was eventually moved to Pathlaiya.

Training was largely restricted to the initial preparation and refresher training of clinic-based health aides and supervisors. Some training of District Family Planning Officers had also been done. The focus of the training for the health aides and supervisors was on technical clinic procedures, general public health, maternal and child health, human reproduction, contraception, etc., etc., with a minimum of emphasis on human behaviour change in relation to the clinic or fieldwork responsibilities of these two categories of workers. In the case of the District Family Planning Officers, there was also major emphasis on their administrative responsibilities.

The training was traditional in nature -- classroom lectures and demonstrations followed by discussion. Some role-playing was used. Occasional trips were made to nearby villages to practice home visiting. Classes consisted of 30 to as many as 100 trainees. They sat in straight rows of chairs and got to their feet whenever a trainer or guest entered or left the room. Films, anatomical models and other teaching aids were liberally used.

While the above training appeared to serve the needs of the Project up to this time, it seemed obvious that it would not serve to prepare workers for the new field structure envisioned for the 5th Five-Year Plan. This structure was built around the concept of a locally-recruited village health aide interacting directly with families from his own and nearby villages. He would have

little or no contact with an FP/MCH clinic, a government Health Post or a hospital. The supervisor of the health aide would also be recruited from his own locality and would not have any direct clinic responsibilities.

An experiential-type, field-oriented training philosophy and approach, with the emphasis on human behaviour and planned change, was designed to meet the need of the new Five-Year Plan. A full description of this training is included as a supplement to the U. C. Berkeley-Nepal Project's Quarterly Reports for May thru July, 1975 and August thru October, 1975. It will not be discussed here.

The success of the new training depended to a large extent on the capacity of the Training Division Chief, selected staff of the Division and other new trainers to accept the new training philosophy and approach. For the most part, the new trainers were able to respond positively to what has most certainly been a difficult transition from their traditional way of thinking and behaving. In the case of the others, particularly the Training Chief, the transition could not be easily made. The Training Chief has resigned her position and three of the Training Division staff are still somewhat frustrated by their new roles. One of the new trainers also resigned after experiencing a serious personality clash with an in-charge trainer. The Training Specialist accepts a fair portion of the blame for failing to develop a relationship with these individuals strong enough and positive enough to have offset these outcomes.

### Upgrading of the Trainers

Much work still needs to be done to bring the trainers up to a level of real professional competence. Plans had been made to have them gather quarterly (between training courses) to participate in refresher and in-service training. They need to sharpen their understandings and skills in a number of areas, such as curriculum development, training methodology, evaluation, sensitivity, group process, role-playing, etc. Until such time as the pressure eases to immediately train the large number of field workers required for the program, the opportunity for upgrading of the training staff in this fashion seems minimal.

In order to make a more immediate contribution to the upgrading of the trainers, scheduled field visits to the Regional Training Centers are currently being planned by the new Training Chief and the Training Specialist. It is anticipated that these visits can begin soon after the middle of March, once the next training course for District Family Planning Officers gets underway.

### District-Level Training

One encouraging development has grown out of the training that was done in connection with one of the Experimental Projects. Two trainers were assigned from the Training Division to train field workers for a project designed to test the effectiveness of bringing program services to families from a panchayat base. The training was done in the Districts and succeeded so well,

particularly with respect to team-building and the professional development of the two trainers, that there now is considerable interest on the part of the Project Chief in using this district training model as a means of taking training even closer to the village setting than is possible using the Regional Training Centers.\* If problems of recruiting the workers can be resolved, this bids to be an important breakthrough for the future training program of the Project. A detailed description of this type of training is included in the section of this Report prepared by the Experimental Projects Specialist (see page 40).

#### Regional Training Centers

Despite a number of problems too complex to understand because of the cultural implications, training is underway in part at all three Regional Training Centers and at Pokhara, where a temporary center is operating. The major concern at this time is that the recruitment of health aides and supervisors to be trained for the critically important field work is lagging dangerously and the prospect of trainees arriving days late for the start of course schedules and in insufficient numbers is uncomfortably real. Whether this situation can be remedied in the remaining 4-1/2 months of the fiscal year is something the Berkeley Team is turning its attention to. An analysis of the manpower needs for the new field structure in relation to the training targets is in

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\* Syanja District (near Pokhara) may be used for this type of training within the next two to three months.

progress and will be presented to the Project Chief for his urgent consideration in a matter of a week or so. Hopefully, he will be able to spur his Regional Medical Officers to do the necessary recruiting so that the training centers can operate full schedules on a continuing basis.

As already mentioned, during the period since the Training Specialist arrived in Nepal, 12 trainers have been trained to conduct experiential-type, behaviour-oriented training. With the exception of the one trainer who resigned (Mr. Prakash Ghimire), the others are conducting training in the three Regional Centers and at Pokhara according to the following table:

NAME OF CENTER	TRAINING STAFF
Dharan	Jyoti Shrestha (In-Charge) Sharada Upreti Narayan Ninglekhu
Pathlaiya	Manu S.J.B. Rana (In-Charge)* Rama Ranjit Shantesh Pradhan
Nepalgunj	Push Pal Shakya (In-Charge) Arjung Singh Bishnu Angbuhang
Pokhara	Bimal Chapagain Bhagwan Shrestha*

\* NOTE: Manu Rana and Bhagwan Shrestha will leave for graduate study in the U.S. approximately August 1, 1976. Mr. Rana will probably be replaced by Mr. Chapagain.

Experimental Training

Experimental Staff Development Training is now underway with groups of District Family Planning Officers at Pokhara in Kaski District, 130 miles northwest of Kathmandu. The purpose of this experimental training is to develop a curriculum and appropriate methodology for this middle-management level of worker. Already six officers have completed the 8 weeks of training and much has been learned that will go into an improved curriculum for a new group of officers who will begin training on March 16th.

Training of Top Management

The impact of the training on program can be greatly maximized if top management's reluctance to involve itself in staff development can be overcome. At this point in time staff meetings, even of an informal nature, are rarely held. Never has there been a staff meeting involving Project staff and the Berkeley Team. A number of attempts have been made to interest the current Project Chief in taking his entire staff of Division Chiefs and Regional Medical Officers away from Kathmandu to have some team training. It appears that this is much too threatening psychologically, not only to him personally, but to other members of his staff as well. A strategy to deal with this critical problem must be worked out by the Berkeley Team or the entire Five-Year Plan is in danger of collapsing.

Field-level workers and middle-management staff whose spirits have been somewhat heightened as a result of training are prepared to make important contributions to the achievement of the Project's targets and objectives; but, unless their efforts can be supported by smoothing out many of the administrative snarls resulting from top management's failure to work as a team, the morale of these staff will soon deteriorate.

#### Curriculum Development

What may prove to be a reasonably satisfactory curriculum for the training of panchayat-based health aides and supervisors is beginning to evolve as a result of experience gained during the year the Training Specialist has been in Nepal. This curriculum, based on things learned while training the trainers in Pokhara, is currently undergoing "test use" at the three Regional Training Centers. It is organized in such a way that each training outcome can be evaluated against each training input, objective, method and training aid. The regional trainers have opportunity to discuss these aspects of the curriculum before and after each day's work with the trainees and they can make notes directly on their copies of the curriculum. A similarly organized curriculum is evolving for the training of District Family Planning Officers and this is being tested at Pokhara in connection with the Experimental Staff Development Training Program mentioned earlier in this report.

The Training Specialist had hoped to involve the trainers in a curriculum development exercise during September, 1975 with the expectation that a satisfactory health aide and supervisor curriculum would result -- a curriculum to which each of them could be personally committed. Time had been set aside for such a purpose at the conclusion of the 16 weeks of field experience training at Pokhara. As things worked out, however, once the training was moved to Kathmandu, it was never possible to bring together more than three or four trainers at one time, so the curriculum development work was never accomplished.

To offset the failure of the curriculum development exercise to take place, the Training Specialist took it upon himself to construct a test curriculum in order to focus the trainers on the need for such a training guide. It is his hope that the regional trainers will recognize strong elements of their own training experience in the curriculum and will find it acceptable at least to the extent of giving it a fair trial. Further, he hopes that a meeting of all of the trainers can be held soon after the fiscal year ends to evaluate this test curriculum and that they will have opportunity at this time to acquire some insights and skills related to curriculum development.

#### Evaluation of Training

Since May of 1975 a fair amount of baseline data have been gathered about the various categories of workers who have

undergone training. Pre - and post-training measurements have been applied to the 12 trainers and the six District Family Planning Officers involved in the Experimental Staff Development Training Program at Pokhara, and there is every intention of applying these same measurements to the 44 Family Planning Officers still to be trained. In addition, each of the Regional Training Centers is applying some baseline measurements to the scores of health aides and supervisors undergoing training each seven weeks. All of these data need to be analyzed to determine if they are appropriate for measuring the impact of the training on the workers during their training and on their future work performance. The relevance of the various training curricula to future work performance also needs careful analysis.

An end-of-course essay examination was given to the most recent group of trainees (District Family Planning Officers) in addition to the baseline measurements. The results were very encouraging and it is believed that some of the statements made by the trainees in their examination responses may be isolated out to serve as some of the most valuable data we have for follow-up evaluation of the training impact.

It is the plan of the Training Specialist to recommend to the Training Chief that two regional trainers at a time (on a rotation basis) be assigned to go into the various districts of the country on a quarterly or semi-annual basis to evaluate the

impact of training. With appropriate instruments and procedures to do this "in-the-field" evaluation, reliable findings should result. In order for the instruments and procedures to be as appropriate as possible, however, technical guidance is necessary in their development.

Also, as the Project's training program takes on broader dimensions, the need to justify expansion of some of its activities in terms of additional staff, budget and facilities will come into sharper focus. Unless the impact of the training program on manpower effectiveness can be properly measured and documented, support for these crucial administrative elements may not occur.

The Training Specialist would like to propose that serious consideration be given to the professional preparation of one of the Nepali trainers to do acceptable evaluation and provide leadership and guidance to the other members of the training staff as well as to the training program as a whole. This preparation should consist of some practical experience within Nepal before going on for theoretical study abroad. A faculty member of the University, specialized in evaluation, might come to Nepal in the near future on a short-term assignment to provide some assistance in this area. It is badly needed.

Nepali Counterpart

Only during the last month of this contract period has it been possible for the Training Specialist to look forward to having a satisfactory counterpart relationship. Dr. Tara Johnson Shrestha found it impossible to accept the new role of the Training Division in relation to the 5th Five-Year Plan. She opposed the idea of the regionalization of training, especially the dissolution of the Project's National Training Center at Kathmandu and its conversion to a Regional Training Center at Pathlaiya, and she found it very difficult to adjust to the idea of a non-clinical, behavioral and field-oriented type of training. As a result, despite much encouragement by the Training Specialist, she withdrew farther and farther from any direct contact with the training and finally resigned her position as Chief of the Division in mid-January, 1976. The fact that her husband, a Training Advisor with USAID, was to terminate his assignment in Nepal in March hastened her departure.

Had the relationship with the initial Nepali counterpart been of a more positive nature, many of the difficulties that were encountered in bringing the training program to its present stage might have been minimized. Much energy and time were spent by the Training Specialist during the final weeks of her tenure in neutralizing her negative influence on the overall program.

The new Training Division Chief, Mr. Hem Hamal, who is also Chief of the Division of Information, Education and Communication, seems extremely interested in training and is already participating actively in the experimental training for District Family Planning Officers currently being conducted at Pokhara. He sees the Project's program as a social rather than medical program. He speaks of the need for himself and the trainers to understand training and manpower development in the behavioural sense. It will be some time before the degree of his understanding and commitment can be fully appraised, however.

## 7.2 Long-Term Fellowships

During this contract period a total of eight long-term fellowships have been made available to Project staff. An additional seven are in process for the coming academic year. This table shows the status of the long-term fellowship program:

NAME OF CANDIDATE	DATES OF STUDY ABROAD	CATEGORY OF TRAINING	UNIVERSITY ATTENDED	PROJECT POSITION NOW OCCUPIED
Dr. Aychut Mani Acharya	Sep 1975- July 1976	MPH Admin.	Berkeley	Regional Med. Officer
Dr. Somat Singh Tulachan	ditto	MPH Admin.	Berkeley	Regional Med. Officer
Mr. Puspapal Joshi	Sep 1975- Aug 1976	PHD Soc. /Demogy.	Berkeley	Chief, Div./ Res. & Eval.
Miss Lazza Karki	Sep 1975- Mar 1977	FP Hlth. Education	Berkeley	Health Educator
Mr. S. B. Sharma Neupane	ditto	FP Hlth. Education	Berkeley	District FPO
Mr. Ganeshman Shrestha	ditto	FP Prog. Managemt.	San Jose State	Sec. Officer -Administra.
Mr. Ram Bhakta Pradhan	ditto	FP Hlth. Ed. & Trng.	San Jose State	District FPO
Mr. Sita Ram Yadav	ditto	FP Health Education	San Jose State	District FPO

It is anticipated that all seven principal candidates for the 1976 fellowships will qualify for admission to graduate study in the American universities. If so, this table will further describe the status of the fellowship program:

NAME OF CANDIDATE	DATES OF STUDY ABROAD	CATEGORY OF TRAINING	UNIVERSITY TO BE ATTENDED	PROJECT POSITION. AND NOW OCCUPIED
Dr. Hari Bhakta Shrestha	Sep 1976- July 1977	MPH Admin.	Berkeley	Regional Med. Officer
Mr. Madhukar B. Shrestha	Sep 1976- Mar 1978	FP Health Education	Berkeley	District FP Officer
Miss Mira Upadhyay	ditto	ditto	San Jose State	Health Educator
Mrs. Maya Shrestha	ditto	ditto	Berkeley	District FP Officer
Mr. Bhagwan Shrestha	ditto	FP Trng. & Hlth.Ed.	San Jose State	Training Officer
Mr. Manu S.J.B. Rana	ditto	ditto	Berkeley	Training Officer
Mr. Gokarna P. Regmi	ditto	Sociology/ Demography	Michigan	Research Officer

7.3 Short-Term Fellowships

The short-term fellowships have ranged in nature from highly-specialized technical training to observational visits to Family Planning/MCH programs, mostly in countries of South and Southeast Asia. The following table shows the status of these fellowships during the contract period:

NAME OF CANDIDATE	DURATION & DATES OF FELLOWSHIPS	PURPOSE OF FELLOWSHIP	PLACE OF TRAINING OR VISIT	PROJECT POSITION NOW OCCUPIED
Dr. Kokila Vaidya	4 weeks	FP Services Delivery (Depo Provera Prog)	Singapore, Thailand, Malaysia	Chief, Div/Clinic Services
Dr. Sanu Maiya Dali	1 month	Laparoscopy & Mini-lap Training	Singapore	Clinic physician, Maternity Hosp, Nbr
Dr. Sarawaldi M. Padhya	1 month	ditto	Singapore	ditto
Dr. Shova Khatri	1 month	ditto	Singapore	ditto
Dr. Mahesh Prasad Chetri	1 week	Training Workshop	Delhi	RMO
P.R. Shakya	1 week	ditto	ditto	Training Officer
J. Shrestha	1 week	ditto	ditto	Training Officer

Plans are now underway to have Dr. (Mrs.) Arya Shrestha from Bharadpur Hospital, Jhapa District, sent to Singapore for training in laparoscopy and mini-lap surgical procedures. This will bring to four the total number of lady physicians newly-trained in these procedures and ready to join the mobile laparoscopy teams providing sterilization services in-the-field to the fertile women of Nepal.

Three additional short-term fellowships will be used in the very near future to send selected administration personnel for an IPPF-sponsored training course in program management.

#### 7.4 Long Range Manpower Development

For some time now the need has been recognized to form a committee within the Project to begin some tentative planning for long-range manpower development. The new Berkeley Work Plan, prepared in connection with the contract extension, summarizes the major objective of this committee in a statement appearing in the Manpower Development section of the Plan. It sets this out as "... The joint development and adoption of a long-range manpower development plan which includes Nepali institutional growth to provide FF/MCH manpower, taking into account phased integration of basic health services and evolving programmatic changes."

By late March or early April, it is proposed to convene a committee composed of the Project Chief, the Chiefs of the Divisions of Training and Administration, the Chief of Party, Berkeley Team and the Training Specialist -- Berkeley Team to begin to deal with this long-neglected area of need. It is anticipated that representatives from other service and program divisions of the Ministry of Health, the Institute of Medicine, the Ministry of Education and the Nepal Family Planning Association will be drawn into the discussions as a workable plan materializes. The new Chief of the Training Division has expressed his deep interest in manpower development and promises to give a fair portion of his time to the committee.

#### What Lies Ahead ?

In the contract extension period that lies ahead -- a period of slightly more than two years -- there is much to be done with respect to training. Most important of all, of course, is the development of Nepali manpower and the structures within which personnel of all levels can effectively function. This is the central and overriding objective of all that the Berkeley Team hopes to do here. As the understandings and technical competencies of each Team member are successfully transferred to Nepali counterparts, the need for us to remain in Nepal diminishes. With this as the perspective, the Training and Field Operations Specialist sees the below-listed tasks of importance:

1. The five activities outlined in the Berkeley Work Plan under section 2., Manpower Development need to be promoted within the philosophy of major involvement of Nepali personnel. Unless each of these activities is recognized by the Nepalis as their concern and opportunity, very little of a positive and lasting nature will result. A first step by the Training Specialist in developing the involvement of the Nepalis will be to expose the new Training Division Chief to the concepts around which the activities are built. Steps in this direction have already been taken with respect to activity 2.1, The Development of a long-range manpower plan.
  
2. The critical need for top management of the Project to work as a team has already been discussed. It is the hope of the Training Specialist and other members of the Berkeley Team that the Project Chief and Deputy Chief, all Division Chiefs and the Regional Medical Officers can be influenced to accept some staff development with a strong emphasis on team building. This item is of top priority and will receive continuing attention.
  
3. A technically-competent training specialist is needed at Central level. This person, who might best be recruited from outside the present group of regional trainers,

should function as deputy to the Training Division Chief. His most important responsibility would be to coordinate the training program as a whole, providing technical field consultation to the trainers at regional and other levels. The Training Specialist has been urging the establishment of such a position, and the recruitment of a qualified person, since his arrival. He will continue this effort as the Training Division Chief's broad administrative responsibilities will never make it possible for him to give to the training program the technical leadership it requires.

4. The need for one of the regional trainers to be selected for development as an evaluation specialist in training has been discussed to some extent in the body of this section of the Report. If the new Training Division Chief accepts this idea, it may be valuable for Berkeley to send one of its faculty, specialized in evaluation, on a series of short-term visits to counterpart with this trainer.
5. District-level interaction training for family-planning officers, supervisors and health aides has been tested with considerable success as part of one of the experimental projects. Plans are now in progress to

test such a training approach in Syangja District within the context of the Project's regular field program. If this proves equally successful, efforts will be made to extend the approach countrywide, which will make it possible eventually to close down two of the three Regional Training Centers, thereby trimming capital investment training costs.

6. Until such time as each trainer in the Training Division has developed his technical understandings and competencies to the point where he can be counted on to do high-quality training with deep professional commitment, upgrading of the training staff will be critically important. Steps will be taken by the Training Specialist to see that continuing staff development training courses and opportunities are provided for staff and that the trainers themselves are involved in identifying their training needs and in planning the ways to meet these needs.
7. Strengthening his relationships with the new Training Division Chief and the regional trainers, and gradually weaning them away from any major dependence on him, will be a continuing emphasis of the Training Specialist in the remaining months of his contract. Already, among

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some of the trainers, there are strong indications of their potential for "going it alone." If the philosophy of the Berkeley Team to transfer their technical understandings and competencies to their counterparts holds up, all members of the training staff and the Project as a whole will demonstrate this potential.

End of Contract Report (Stoeckel)

8. Summary of Research and Evaluation Activities

8.1 Initial Activities of Data Assessment

One of the first tasks of the Research Demographer/Sociologist was to assess the utility of existing population data for developmental planning. This activity consisted of the following:

- A. Calculation of Fertility and Survivorship Estimates from the 1971 Census of Nepal - these estimates were constructed to assess the reliability of data collected by the 1971 census. Results indicated massive underreporting of births and deaths and consequently crude birth and death rates could not be relied upon for developmental planning purposes.
- B. Analysis of Rastra Bank Household Budget Survey - in this survey which covered the urban towns of Nepal a number of questions were asked which elicited information on fertility and mortality. After a recording of this information to allow computation of vital rates, it was found that sufficient underreporting of births and deaths had occurred so that the rates derived could not be useful for planning purposes.
- C. Design of a Social Demographic Analysis of 1971 Census Data - the objective was to obtain "relative" differences

in fertility and mortality and their relationship to social and economic factors. However, the study could not be initiated since the data processing costs proved to be prohibitive, i.e., almost one-half of the family planning research and evaluation units budget.

- D. Bara and Kaski Integrated Health Project Data - data collected in a register form on births and deaths from these areas was utilized to calculate vital rates. While underreporting has also occurred the crude birth rates derived were closer to a believable level, i.e., around 40 per thousand.

## 8.2 Baseline Data Projects

With virtually no reliable data available for program planning and evaluation it became apparent that the research and evaluation unit would have to establish their own data base. This began by taking a sample survey of four districts. The primary objective of this survey was to generate baseline data which can be utilized on a longitudinal basis to evaluate and assess the impact of the experimental family planning programs as well as the regular program. More specifically, the survey seeks to answer the following questions:

- (a) What are the current levels of fertility and family planning practice and how do they differ between the Hills and Terai ?

- (b) What changes in fertility and practice of family planning have occurred over time which could be attributed to the various experimental programs over and above the changes which would have been expected had the programs not been operating ?
- (c) What are the differences in changes in fertility and family planning practice and program affects between the Hill and Terai Areas ?

Survey Design and Methodology

To realize the above objectives the following design and methodology was adopted:

- (a) In the first year four districts were selected, two from the Hills, Kaski and Gorkha, and two from the Terai, Parsa and Dhanusha. Kaski and Parsa will have the integrated FP/MCH programs within the year while the remaining two districts will serve as areas for implementation of experimental programs. Both Gorkha and Dhanusha were selected on the basis of their similarity to Kaski and Parsa, respectively. Among the factors utilized for matching each of the districts were, population size and density, number of hospitals and health posts, ethnic composition and proportion of males and females with no education.

Five Panchayats from each district and five Wards from each of the Panchayats were selected on the basis of a PPS\* sample design. An interview schedule was administered to all currently married women aged 15 to 44\*\* in all households of each of the wards in the first three months of 1975. These women will be treated as a panel and re-interviewed regularly on an annual basis (plus at any other time during the year when program specific problems arise). Among the kinds of information collected from these women are, a complete pregnancy history including incidence of infant and child mortality, stillbirth and abortion; social, economic and demographic characteristics; norms of family size including desired and ideal sizes; family planning knowledge and practice; and the amount of time the husband has been out of the household.

Extreme care was taken to insure that the most reliable data possible was collected. The Research Demographer/Sociologist participated in the training and evaluation

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\* PPS refers to a selection of units based upon probabilities proportional to size of the population of the units.

\*\* The number of Women interviewed in each district is as follows:

haski - 1,599, Gorkha - 1,534, Parsa - 1,595,  
Dhanusha - 1,240.

of the interviewer staff. The ratio of interviewers to supervisors was 5 to 1 and each supervisor was responsible to a Family Planning Project Staff member. All interviews were checked in the field by the Research Demographer/Sociologist, supervisors and project staff and a ten percent re-interview of the total samples conducted by the supervisors to assess consistency of response. In addition all women who reported an interval of more than three years between any two birth events was reinterviewed and her pregnancy history reconstructed to minimize as far as possible the under-reporting of pregnancy events.

- (b) In the second year two new districts, Syangja in the Hills and Rupandehi in the Terai, were selected to replace Kaski and Parsa, respectively. These latter two districts will be included in the third round of the survey next year bringing the total number of districts with baseline data to six. As with the first round the Research Demographer/Sociologist participated in the training and supervision of the interviewer teams. The Sample Design remained the same and all of the extensive checking and rechecking procedures (i.e., a 10% follow-up of all respondents and 100% follow-up probes into birth intervals of three years or more) utilized in the first survey were also utilized in this second round.

### Data Processing

Processing of the first round of surveys continues to be a problem. However, the edit and marginal programs have provided the initial set of data from which the tabulation format could be constructed. These data and format will be taken to Berkeley by a project staff member and analysis completed on the University computer.

A report of the preliminary findings (i.e., results from a hand tabulation) of the first round survey was prepared because of the time lag in data processing. The report entitled, "Four District Family Planning and Fertility Baseline Survey: Preliminary Report," can be found in Appendix ?

A hand tabulation of fertility, mortality and family planning data also began immediately after completion of the second round of surveys. These data will provide a preliminary comparison with the tabulations from the first round, while the second round data is being coded. Upon completion of coding and editing the second round data will also be run by a project staff member at Berkeley.

### 8.3 Models Prepared for Development Planning

- (1) A set of models was prepared which estimated the births that needed to be prevented to realize selected reductions in the crude birth rate (under selected

assumptions of changes in the crude death rate) and the target numbers of effective contraceptive users and adopters necessary to realize the reduction. These models also compare the observed performance of the family planning program and the performance that would have been necessary between 1970 and 1975 to realize selected reductions in the CBR; and applies marital age specific fertility rates to the age distribution smoothed by the Central Bureau of Statistics for 1970-1980 to demonstrate that indeed the CBR will not fall under conditions of constant fertility but will remain relatively constant over time.

- (2) Models of future growth rates assuming selected reductions in fertility and mortality were prepared at the request of the Health Department for inclusion in their 20 year plan.
- (3) A model was prepared for 1975-2000 which provided estimates of the CBR, CDR, IMR, births that need to be prevented and No. of 100% effective users necessary to realize selected reductions in the CBR if the Net Reproduction Rate were to reach the replacement level in the year 2000.

#### 8.4 World Fertility Survey (WFS)

The Research Demographer/Sociologist was made coordinator of the Nepal Fertility Survey (NFS) which is a part of the WFS

Program. It was agreed that 75% of his time would be spent on the NFS. His duties have included participation in the development of the sample design, adaptation of the WFS questionnaire for Nepal, training of the senior supervisors and evaluation of training of interviewers. (Fieldwork for the survey begins April 1, 1976 and is scheduled to continue through June.)

#### 8.5 Reports, Seminar Papers and Publications

"Four District Family Planning and Fertility Baseline Survey" (Preliminary Report), prepared jointly with R and E staff (See Appendix ?)

"The Population of Nepal," J. Tuladhar, B. B. Gubhaju, F. L. Joshi and John Stoeckel (Paper presented at the Berkeley Seminar.)

"Experimental Family Planning Programs in Nepal", J. Tuladhar, B. B. Gubhaju, B. K. Pande and John Stoeckel. (Paper presented at the Berkeley Seminar).

"Marital Structure and Birth Rate in Nepal", Journal of Biosocial Science, Forthcoming in April 1976, pp. 79 - 84. (John Stoeckel, J. M. Tuladhar, B. B. Gubhaju and F. L. Joshi).

The Population of Nepal : Structure and Change, Jayanti Tuladhar, B. B. Gubhaju and John Stoeckel.

The monograph has been accepted for publication in Nepal and a slightly revised version will be submitted for international publication. (Include Copy of Monograph ???)

8.6 Miscellaneous (Additional advisory activities)

(a) Editing of Papers and Reports:

- 1) Trisuli Evaluation Report
- 2) Trisuli Vital Events Report
- 3) Regression Estimates for Fertility in Nepal
- 4) Acceptor Survey Report
- 5) Papers prepared by staff members for outside publication.

(b) Participated in discussions on the creation of a Population Association of Nepal (PAN). This idea originated with project staff (Tuladhar and Gubhaju) and they have moved ahead to obtain the necessary clearances etc. This would provide a single forum through meetings and a journal where all of the research on population and family planning in Nepal could be brought together. The Research Demographer/Sociologist has been asked to serve as advisory editor for the journal.

(c) Served as a technical consultant to the planning commission's Population Task Force.

- (d) Participated in the development of the R and E Units "Work Plan" under the next national Five Year Plan.
- (e) Served as a "resource person" for the Integrated Health Services Evaluation Team and prepared estimates of births prevented as a result of various patterns of contraceptive use in integrated and non-integrated areas.

Widow of Soldier

1. Name: \_\_\_\_\_ Age: \_\_\_\_\_  
Zone: \_\_\_\_\_ District: \_\_\_\_\_  
Panchayat: \_\_\_\_\_ Ward No.: \_\_\_\_\_
2. Are you drawing pension: Yes  No  When? \_\_\_\_\_
3. What was your husband's name? \_\_\_\_\_
4. What was your husband's regiment? \_\_\_\_\_
5. What was your Husband's Number? \_\_\_\_\_
6. What was your husband's rank? \_\_\_\_\_
  - (a) Rifle man
  - (b) Lance Corporal
  - (c) Sergeant Staff Sgt. & Capt.
  - (d) WOI & WO.II
  - (e) Lieutenant
  - (f) Captain
  - (g) Major and above
7. What was the year of your marriage? Year: \_\_\_\_\_
8. What was your age at the time of your marriage? Age: \_\_\_\_\_
9. What was the difference between your age and the husband's?  
Year: \_\_\_\_\_
10. What was the year of your husband joining Gorkha Soldiers?  
Year: \_\_\_\_\_
11. Did you have any children when your husband joined the Gurkha?  
No  Yes  # \_\_\_\_\_

12. Did your husband die in Nepal or in regiment?

In Nepal  Regiment  What Year: \_\_\_\_\_

13. How many children did you have from this marriage: # \_\_\_\_\_

14. Were you out of Nepal with husband? Yes  No

If yes, Where? 1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

How long? Date(s) \_\_\_\_\_ to date: \_\_\_\_\_

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

How many children did you have when you left Nepal the first time:

\_\_\_\_\_

How many children born out of Nepal? 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

How many children died out of Nepal? \_\_\_\_\_ Name \_\_\_\_\_ Age \_\_\_\_\_

Where have you lived since your return to Nepal? \_\_\_\_\_

15. How many children were born after you returned to Nepal to live? \_\_\_\_\_

Year of Birth

Sex

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

16. How many times have you been pregnant? \_\_\_\_\_

Preg- nancy No.	Date of birth	Sex	If not still living give date of death	Was your husband at home during first yr. of life	If absent, for how many months was husband absent?
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

17. How many surviving children at present: \_\_\_\_\_

		<u>Current Occupation</u>	<u>District</u>	<u>Panchayat</u>
(a) Males:	1. Age	_____	_____	_____
	2. "	_____	_____	_____
	3. "	_____	_____	_____
	4. "	_____	_____	_____
(b) Females:	1. "	_____	_____	_____
	2. "	_____	_____	_____
	3. "	_____	_____	_____

18. Did you ever beget a dead infant? Yes  No

If yes, how many: \_\_\_\_\_

19. Have you born a live child who lived a short time?

Yes  No  How many: \_\_\_\_\_

20. Have you ever experienced abortion? Yes  No

If yes, how many: \_\_\_\_\_

21. Are your children going to school? No  Yes

If yes, upto what standard do you want to educate them?

(a) Son \_\_\_\_\_

(b) Daughter \_\_\_\_\_

Gurkha Fertility Survey

1. Name \_\_\_\_\_ Date: \_\_\_\_\_
2. Army No. \_\_\_\_\_ Pension Camp \_\_\_\_\_
3. Rank (a) Rfm & Lept.  
(b) Cpl  
(c) Sergeant & Staff Sergeant  
(d) WOL & WOH  
(e) Lieutenant & Captain  
(f) Major and above
4. Address (a) District \_\_\_\_\_  
(b) Village Panchayat \_\_\_\_\_  
(c) Ward No \_\_\_\_\_
5. What is your current age? \_\_\_\_\_
6. What is current age of your wife? \_\_\_\_\_
7. In what year did you join the Army? \_\_\_\_\_
8. How many years did you spend in the army? \_\_\_\_\_
9. In what year did you get married? \_\_\_\_\_
10. How many years did your wife accompany you outside Nepal? \_\_\_\_\_
11. How many living children do you have? \_\_\_\_\_
12. Is any of your children dead? Yes  No   
If yes, how many? M  F  In Nepal \_\_\_\_\_ Outside Nepal \_\_\_\_\_
13. Have you married more than once? Yes  No   
If yes, how many times? \_\_\_\_\_

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14. After returning to your Panchayat permanently from your service has your 1st, 2nd or 3rd wife begotten child?

	<u>Date of birth</u>	<u>Date of birth</u>	<u>Date of birth</u>
If yes, (a) from 1st wife	_____	_____	_____
(b) from 2nd wife	_____	_____	_____
(c) from 3rd wife	_____	_____	_____

15. Has your 1st, 2nd or 3rd wife had a child during the last twelve months? If yes,

	<u>Date of Birth</u>
From 1st wife	_____
From 2nd wife	_____
From 3rd wife	_____

16. In which year and month your 1st, 2nd and 3rd wife had last child?

	<u>Year</u>	<u>Month</u>
If yes, from 1st wife	_____	_____
from 2nd wife	_____	_____
from 3rd wife	_____	_____

17. Most married couples use some type of contraceptive in order to prevent pregnancy or to space children so that they could have the number of children at any time they want. What do you think of it?

Support  Not  Not yet decided

18. Do you know of any family planning method to prevent pregnancy or to space children? Which method:

Pills	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Loops	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Condoms	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Vasectomy	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Laparoscopy	Yes <input type="checkbox"/>	No <input type="checkbox"/>

19. Have you or your wife used any family planning method to prevent pregnancy or to space children?

Yes  No

If yes, what method?

Yourself \_\_\_\_\_

1st wife \_\_\_\_\_

2nd wife \_\_\_\_\_

3rd wife \_\_\_\_\_

20. What did you learn to do in the army? \_\_\_\_\_

Did you learn any of the following skills in the army?

- (a) Driving
- (b) Radio Operator
- (c) Draftsman
- (d) Reacher Training
- (e) Medical Training
- (f) Other

21. Have you been engaged in any work for pay since your return from service? Yes  No

22. Have you become a member of Panchayat after your return from service?

Yes  No

If yes, what are you? \_\_\_\_\_

23. Have you become a member of ex-service man organization after you returned from service?

Yes  No  If yes, what is your position?

24. How much pension do you receive per month? \_\_\_\_\_

25. How much land do you have? \_\_\_\_\_

26. Do you have any of the following in your family?

- (a) Radio
- (b) Tape Recorder
- (c) Watch
- (d) Others

27. Are your children going to school? Yes  No

If yes, upto what standard do you want to educate them?

For sons \_\_\_\_\_

For daughters \_\_\_\_\_

28. Have you and your wife separated from each other for a month or more after your return from service?

Yes  No

If yes, (a) How many times, first wife \_\_\_\_\_

second wife \_\_\_\_\_

(b) For how long \_\_\_\_\_

Separation

First wife

Year

Month

1st Time

\_\_\_\_\_

\_\_\_\_\_

2nd Time

\_\_\_\_\_

\_\_\_\_\_

3rd Time

\_\_\_\_\_

\_\_\_\_\_

4th Time

\_\_\_\_\_

\_\_\_\_\_

5th Time

\_\_\_\_\_

\_\_\_\_\_

Separation

Second Wife

Year

Month

1st Time

\_\_\_\_\_

\_\_\_\_\_

2nd Time

\_\_\_\_\_

\_\_\_\_\_

3rd Time

\_\_\_\_\_

\_\_\_\_\_

4th Time

\_\_\_\_\_

\_\_\_\_\_

5th Time

\_\_\_\_\_

\_\_\_\_\_

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Gurkha Fertility Survey

1. The British Gurkhas represent a unique group of people within the Nepal population.
  - a) They have been subject to rigorous discipline.
  - b) They have travelled to foreign lands.
  - c) They have lived and worked in foreign places and may be expected to have a change in values and sophistication that this experience brings.
  - d) Their wives and families have accompanied them.
  - e) During their service they and their families have level of nutrition, sound environment, and excellent medical care which approaches the ideal.
  
2. Studies internationally indicate that women with more education, and more sophistication than the general population usually have smaller families than the general population. There is also an inverse relationship between the frequency of pregnancy and the percentage of pregnancies resulting in a living child who survives to age 5 or longer. Therefore the following hypotheses may be expected to hold true for the wives of retired British Gurkha soldiers.
  - a) The total number of pregnancies experienced by wives should be fewer than for the general Nepali population.
  - b) The percentage of those pregnancies resulting in children who survive to age 5 or longer will be higher for wives of retired Gurkhas than for the general population.

- c) The infant mortality rate and childhood mortality rate of children of British Gurkha soldiers will be lower than for the general population.
  - d) Children born after the parents have returned to the village environment will have a higher infant and childhood mortality rate than children born while both parents were in a military camp.
3. The British Military authorities in Nepal have agreed to allow Nepali authorities access to their records for that data of interest in relation to fertility and survival of children. These records are located at the two British Military Camps in Paklihawa and Dharan. While excellent records are held some of the data requires up-dating and some validation is considered essential to the study. Data is held in form 200 and the Kindred Roll for each enlisted man.
4. It is therefore proposed that
- a) A code instrument be generated to cover the necessary data available in the records.
  - b) A survey instrument be generated to gather information from individual retired soldiers.
  - c) Where possible the survey data and the coded data be matched.
  - d) Analysis of the data focus on the four hypotheses set out in number 2.
5. The plan for the collection of data is as follows:

- a) Data for the Eastern Hills Region will be collected first.
- b) The interview (survey) data will be collected before the "records" data is obtained.
- c) There are two channels for the collection of survey data.
  - 1. The pension paying trek in the Hills.
  - 2. The pension paying post at Dharan.

If permission is granted a Research Officer and two interviewers will accompany the Pension Paying Trek, and will interview as many retired soldiers as opportunity permits.

A second Research Officer and three interviewers will work at the Dharan Post.

The interviewers can be trained in three or four days at Dharan with the two research officers collaborating on this task. The interviewers should be fluent in Rai and Limbu languages in the East, and in Gurung and Magar languages in the Western Hills. A survey should be made on at least 700 pensioners in the East and 700 in the West.

- d) When the survey is complete I. D. numbers on the survey forms should be matched with military records (Form 200 and Kindred Roll) and the information there matched with the survey.
  - e) This data will form the foundation of the study.
  - f) It may be necessary to interview a 2% sample of wives in order to validate the information given by husbands concerning pregnancies, deaths, etc.
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6. The comparison of this data (control) will be the populations in Gorkha, Dhanusha, Syangja and Rupendehi which have already been surveyed under the K. A. P./Fertility Surveys of 1975 and 1976.

This data can provide a baseline of two general populations. The first is military (retired) and non-military combined. The second is non-military only.

7. This data (from section 5) will be coded and punched in Nepal and then placed on magnetic tape. A Nepali Officer will then take this data to U. C. Berkeley for analysis by computer.
8. The Research Officer in charge of this data is Mr. Jit Pal Kirant.