



**AGENCY FOR
INTERNATIONAL
DEVELOPMENT**

PROGRAM MEMORANDUM

FY 1970

INDIA

ANNEX I — Part 1

ANNEX N

ANNEX O

**DEPARTMENT
OF
STATE**

SEPTEMBER 1968



ANNEX I - PART ONE
FAMILY PLANNING: THE GOI PROGRAM

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USAID/INDIA PROGRAM MEMORANDUM FY 1970

F A M I L Y P L A N N I N G

Abstract

I. PROGRESS

The GOI Family Planning Program has progressed impressively since 1965, when the Government markedly increased funds and manpower for the program.

Some indices of progress are:

- * 3.2 million sterilizations have been carried out since 1965 (1.8 million in 1967/68) compared to one million in the previous 14 years; 2.4 million IUD insertions (650,000 in 1967/68) have been made since 1965. A program to distribute condoms through some 600,000 retail outlets is scheduled to begin this fall, and the introduction of oral contraceptives into the nationally sponsored program is being intensively explored.
- * A crash orientation and training program has reached approximately 13,000 doctors (2,200 in the past year) and 122,000 workers (44,000 in the last year). Thus, although only about 50,000 regular family planning staff are on the rolls, many thousands more have been enlisted as ancillary workers or as volunteers.
- * To offset medical and non-medical manpower shortages, especially at the rural level, the GOI has mounted an effective mobile program. Mobile IUD, sterilization and audiovisual vans now are operating in most of India's 325 districts. These mobile services have been coordinated with the innovative motivational concept of the "Family Planning Fortnight," during which, in a given area, total resources of information, motivation, supplies and services are simultaneously concentrated.

- * A pragmatic use of modest monetary incentives to acceptors, doctors and volunteer motivators has apparently greatly stepped up the effectiveness of the communication and motivational campaign, particularly within the urban slums where vasectomies have caught on.

II. PROBLEMS AND PROSPECT

However, despite its achievements we believe the GOI will not be able to reach its proclaimed goal of a birth rate of 22 per thousand by 1978/79 (vis a vis the presently claimed 41 per thousand) because:

- * Current methods are not acceptable to a large and young enough group of couples. Sterilization is not generally acceptable to families with few children because of high infant mortality rates. IUDs (and oral contraceptives) have, so far, less than a 50 per cent continued use rate, primarily because they cause erratic bleeding which is considered unclean.
- * Even with improved reversible contraceptives it is doubtful that the GOI could achieve its goals because the family norm remains well above the three child family for deep seated and practical reasons: The poor of India, having no other form of social security, believe they must have at least two living sons to provide support in their old age. Mortality remains high among the young. Reportedly 40 per cent of all deaths are among children under five years old. Consequently, a couple must have perhaps seven children to be reasonably sure that two sons will survive to maturity, whereas, to reach 22 per thousand, all Indian couples on the average would have to be willing to stop at three live births.

- * Even within these limits, neither the message nor supplies of presently available methods and services have so far penetrated more than ten per cent of rural India, which accounts for 80 per cent of the population. The logistic effort involved in effectively reaching the entire country, while not unattainable, nonetheless will require massive and multiple mobilization of all resources on a scale perhaps ten times the present level.

It seems highly unlikely that under the best of circumstances India can reduce its birthrate below 35 per thousand unless there is:

- * Rapid enlistment of untapped sources of manpower especially at the local village level;
- * Greatly improved distribution of all supplies, services, information and financial resources; and
- * Intensified research and development of new contraceptives: simple, acceptable, safe, non-clinical, cheap and reversible. (The Mission has already urged an all-out effort on the part of the U.S. government to sponsor development of such contraceptives and believes that, while the major technological effort should be U.S. based, Indian scientists should be drawn into the effort at the earliest stage.)

III. PROGRAM PRIORITIES

Pending major adjustments in family size norms and the availability of better technology, all-out efforts will continue to be pressed to assure the maximum recruitment of contraceptors and optimum use of presently available resources, with emphasis on rapid improvements in four priority areas:

- * Pursue more vigorously the rapid enlistment of untapped sources of manpower, especially at the

local village level. This will involve finding ways to enlist the practitioners of indigenous systems of medicine (about 400,000), the teachers in primary and secondary schools (about 2,000,000) the indigenous midwives (about 500,000 or more) and the multipurpose village agricultural and community development worker (about 80,000).

- * Greatly improve distribution of all information, supplies and services to keep the pipeline full and moving down to the client at the individual village and family level. Remove existing procedural bottlenecks in the grant-in aid process and other fiscal measures.
- * Improve the content and extend the radius of the motivational communication services, with special attention on innovative ways of using mass communications tools and technique.
- * Improve the program reporting system with special attention to more accurate estimates of vital statistics.

IV. THE ROLE OF UNITED STATES AND OTHER FOREIGN AID

The primary policy initiative, responsibility and credit for the program emphasis and progress outlined above belongs to the GOI. The role of United States and other foreign assistance, while useful, is still marginal and subordinate to GOI initiatives.

The size and nature of the population problem which the GOI confronts is one for which foreign technical assistance programs of the past provide only superficial precedents. The experience is one in which the foreign technicians become not so much expert advisors as, along with the Indian officials themselves, learning participants.

The current USAID FY 1968 family planning assistance, for which about \$7.7 million in loan and grant aid is currently programmed, is illustrative of the useful but distinctly subordinate role of foreign assistance in the GOI family planning effort. The largest part of the program is for commodities which feed into activities planned and directed by the GOI:

- * A development loan of \$2.7 million for the imported components of some 6,000 vehicles, manufactured in India, to increase mobility of the GOI staff in the field.
- * Nearly \$3 million for condoms and condom packaging machines, to be distributed through an unprecedented test of a nationwide commercial advertising and marketing program, using half a dozen private distributors with up to 600,000 retail outlets. Technical assistance is being provided by Ford Foundation.
- * Some \$200,000 for an oral contraceptive program ultimately to involve 100,000 women to test and demonstrate the acceptability of these methods in India.
- * USAID technicians are assisting in the improvement of India's demographic data collecting and analyzing capability and institutions and are helping develop improved training methods materials and institutions, including programs for the training of local village workers.
- * Communications supplies -- mailing machines, film making equipment and audiovisual vans -- are inputs to the GOI mass motivation and education program already underway, and will be particularly useful to the GOI initiatives in the Selected Areas and Intensive District programs.

The usefulness of these and other foreign assistance inputs share the common restraints placed by the high incidence of child mortality and the limitations of acceptability or effectiveness of current methods.

However, although as noted above it seems unlikely that the birth rate will be brought down below 35 per thousand, to drop to this level in a decade would be an unprecedented achievement which justifies the all-out effort already launched by the GOI and deserves unstinting international encouragement and support.

USAID/INDIA PROGRAM MEMORANDUM FY 1970

FAMILY PLANNING

I. THE PROBLEM

India's population of at least 520 million is growing by some 13 million a year. The present birth rate is agreed to have been at least 41 per thousand during the period 1961-65 and may be substantially higher. The death rate has dropped sharply in the past few decades to an officially estimated 16 per thousand by 1965. As a result, the population is increasing at the rate of about 2.5 per cent per year, which, if not checked, will double the population to a billion in about 30 years.

Furthermore, this population which already accounts for nearly 15 per cent of the world's people is confined to an area which is only 2.4 per cent of the world's land, and a doubling of population means a doubling of density as well.

The census and other demographic data on which both the total population size and the birth and death rates are subject to varying interpretations which suggest that the population may be as much as 50 million more -- or already about 570 million -- and that both the birth rate and death rate may be underestimated. Alternate All-India crude birth rates of 43, 45 or 47 per thousand and death rates of 18 or 20 per thousand have been plausibly defended. ^{1/}

A large population is not per se an economic problem nor is a rate of growth of 2.5 per cent per year unusual. The critical questions are: (1) is the rate of population growth outrunning the

1. By, among others, USAID/India consultant Dr. George Stolnitz, in An Analysis of the Population of India, USAID/India, July 1967 mimeographed, 56 pp.; and in USAID/India Staff Memorandum, Population of India, submitted as Annex E to the FY 1969 USAID/India Program Memorandum, August 14, 1967, hectograph, 10 pp.

development effort, and (2) how large is the target group which needs to be reached and persuaded to limit the size of their families. These two points are discussed in the following sections.

A. The Impact on India's Development Program

It is perfectly clear that the rapid growth of its population is the most important single obstacle to India's efforts to raise the welfare of its people. India must increase its national income rapidly merely to stay abreast of population growth.

During the first two Five-Year Plans (1951-61) almost 60 per cent of the hard-won growth of income was eaten away by expanding population. And this is on the basis of official census figures which may have underestimated the population growth rate, which they put at 2 per cent per year during 1951-61.

This was bad enough, but it is clear that the growth of population is now at least 2.5 per cent per year and may very well rise further. The Expert Committee estimated that it rose 2.4 per cent per year from 1961-65 and on its "high" fertility projection would rise 2.6 per cent per year from 1966-70 and 2.7 per cent from 1971-75. (See Chapter XII, p. 155). Professor Stolnitz believes it likely that these so-called "high" projections are conservative, if anything.

Looking to the future, therefore, the bite on income required merely to support more people will be even greater unless and until population growth can be reduced. Raising living standards will be even harder. While the immediate threat of widespread famine has receded with the prospect that food production can be increased by 5 per cent per year for a number of years, the danger lurks ahead that sooner or later intractable limits will be reached.

Projections for income growth over the next decade suggest that with realistic foreign assistance levels national income is not likely to grow more than about 5 per cent on the average, and might easily be as little as 4.4 per cent. To achieve these rates and to progress toward self-sufficiency would require higher savings. Consumption could rise by only 4.2 and 4.0 per cent,

respectively, during the Fourth Plan, and would rise to 4.7 and 4.4 per cent toward the end of the Fifth. If, during this period, the population rises 2.6 and 2.7 per cent, the standard of living would rise by only 1.6 or 1.4 per cent over the Fourth Plan period and would, by the end of the period, attain a level of perhaps \$62 compared to about \$56.5 per capita in 1967-68 (net national product in 1967-68 prices).

The value of successful efforts to slow population growth shows up sharply. If the "low" fertility projection of the Expert Committee could be achieved, which is compatible with the GOI Family Planning program targets, the population in 1976 would be over 4 per cent less and by then would be growing by less than 2 per cent per year. Assuming that the marginal productivity of population is zero, per capita income would then be almost 5 per cent higher (about \$64.60) and would be growing almost 25 per cent faster.

Actually, the foregoing comparisons understate the benefits to lower population growth, because the growth of income would be easier to achieve and because the necessary savings would eat into higher consumption progressively less.

B. The Size of the Target Population

The size of a family planning target population can be determined in several ways: How many need to be convinced of the desirability of keeping their families small in size? How many have to practise contraception successfully? How much of the volume of a given, say ten year, program represents "backlog" and how much needs to be devoted to couples each year who become candidates for family limitation? What is the feasible size of the program target if an essential aspect for success is to offer family planning as part of an integrated maternal and child care service? An understanding of the demographic factors which determine the answers to these questions may help to put the logistic requirements and achievements in better perspective.

The GOI has set as its official family planning program target reduction of the birth rate from 41 per thousand to 25 per thousand by 1975-76, and more recently has extended the target and time period to 22 per thousand by 1978-79. If achieved, this would result in an annual growth rate of 1.3 per cent, allowing for anticipated reductions in mortality to 9 per thousand in the next decade. 2/

The GOI program's operational goal is to encourage the 91 million couples still in the reproductive ages 15-44 (about 90 per cent of the married population of India) to adopt effective family planning through activities which (a) promote group acceptance of the concept of a small family; (b) make sure that all individuals have personal knowledge about family planning and the ways to practice it; and (c) make supplies and services readily available. 3/

At the present time, births producing the first, second and third child already account for 22 out of the 41 births per thousand. 4/ This fact was first noted and dramatically publicized in the analysis of the 1951 Census, prepared by R. A. Gopaldaswami, who termed all pregnancies after the third birth "improvident maternity." 5/

2. See Chapter XII for discussion of these targets.
3. GOI, Ministry of Health and Family Planning, Family Planning in India, published by Central Family Planning Institute, November 1967 (14 pp.) p. 1.
4. See table on following page.
5. Government of India, Census of 1951, Volume I-A. His chapters on agricultural development and its emerging problems and on the need for immediate large scale promotion of family limitation, written fifteen years ago, provide a timely historical perspective for current development analysis. See also his monograph Planned Development and Population Growth, I AMR Working Paper No. 4/1963, published by the Institute of Applied Manpower Research, November 1963, 57 pp.

TABLE I

ESTIMATED NUMBER OF CHILDREN
BORN IN 1966-67 BY ORDER OF BIRTH

		(millions)	births (per thousand)
First	20.1%	4.22	8.3
Second	17.6%	3.70	7.3
Third	15.5%	3.25	6.4
Fourth	13.1%	2.75	5.4
Fifth	10.9%	2.30	4.5
Sixth and more	<u>22.8%</u>	<u>4.78</u>	<u>9.4</u>
Total births	100%	21.00	41.3

Source: Percentages derived from All India 1961 distribution as given in Table 12, in Agarwala, S.N., Some Problems of India's Population, Bombay, 1966

Total population in 1966/67 is estimated to have been 507 million.

TABLE II
NUMBER OF MARRIED WOMEN IN AGES 15-44
(in millions)

Age	Per 1000	1966/67	1978/79
15-19	27	13.7	16.7
20-24	40	20.3	24.8
25-29	39	19.8	24.2
30-34	31	15.7	19.2
35-39	24	12.2	14.9
40-44	19	9.6	11.8
Total 15-44	180	91.3	111.6
All Married Women	224	113.6	138.9
Total Population	1000	507.0	620.0

Sources: GOI 1961 Census data as analyzed by S. P. Jain, "Some Data on Target Women in the Indian Family Planning Program", reprinted from The Journal of Family Welfare, Vol. XIV, No. 2, December 1967, published by the Family Planning Association of India.

TABLE III
NUMBER OF CHILDREN BORN
TO MARRIED WOMEN IN AGES 15-44
 (in millions)

Number of Children Born	Percent (1961 Census)	Married women 15-44	
		1966/7	1978/9
0	18.4	16.8	20.6
1	15.5	14.1	17.2
2	15.0	13.7	16.7
3	14.1	12.9	15.8
4	12.4	11.4	13.9
5	9.4	8.6	10.5
6	6.5	5.9	7.2
7	4.1	3.7	4.6
8	2.4	2.2	2.6
9	1.2	1.1	1.4
10	.6	.6	.7
11+	.4	.3	.4
Total Ages 15-44	100.00	91.3	111.6
Number with 3+ live births		46.7	57.1
Number with 5+ live births		22.4	27.4

Source: Parity percentages from GOI 1961 Census data as analyzed by S. P. Jain, *op.cit.*

Consequently, as a practical matter, although all the 91 million couples would need to be persuaded to try to limit their families to, on the average, no more than three children, the hard core target group of couples who would need actually effectively to adopt family planning limitation is only about half that size, around 45 million couples.

Several other facts are relevant in considering the size and character of the target group:

- * Indian women are, on the average, about 25 when they have their third child, and have two decades of potential child bearing years still ahead.
- * Infant and child mortality are still very high. An estimated 40 per cent of all deaths is accounted for by deaths of children under the age of five, and 14 per cent of all infants die before they are a year old.
- * Particularly in rural areas, the desire for two living sons is still the most consistently dominating motivational factor influencing adoption or non-adoption of contraception. ^{8/}

These factors combine to make it impractical to expect a couple who has just had a third child to be willing to resort to sterilization, even if there are two sons among the three children, for at least ten years or until they became reasonably confident their sons would survive; however, they might be willing to try a reversible method during this interval. This suggests that the overall GOI family planning in any given year and over the ten year prospective plan, as well as in any given locality, will probably find its acceptors of condoms and loops among the younger wives and husbands and the sterilizations among the older group. It also suggests that as the program grows in size, many of the acceptors of sterilizations will not be new contraceptors but "graduates" from reversible methods.

8. See Chapter IX on Motivation: General Considerations

In looking at the size of the problem, it should not be forgotten that the overall target population -- the 91 million including the 47 million who have three or more children -- takes in a large backlog as well as, each year, a cohort of new "entrants." (These new "entrants" can be looked at as consisting of all newly married couples in a given year, and/or they can be considered to be the mothers who have just had their third live birth. In 1966-67 the latter numbered about 3.5 million mothers.) Thus, the GOI long range program viewed in perspective is not an impossible task numerically: For example, if sterilization were acceptable to all the couples with their third live birth, a family planning program of no more than five million husbands each year would be enough to take care of present backlog as well as cope with new entrants by the end of the decade. If a virtually 100 per cent effective, reversible and readily acceptable equivalent were available, the same reduction in birth rate could be achieved over the same period of time.

This is not to minimize the logistic problem of reaching down into each of some 560,000 villages and towns through which these target couples are distributed. It is roughly estimated that in any average rural village of 1,000 people, about 224 will be married couples and about 180 will be in the reproductive age-group of 15-44. About 90 will already have three or more children. While initially this is a large task, if or when backlog is taken care of the auxiliary nurse midwife (ANM), health assistant or other family planning worker would only have to seek out and persuade 7-9 new candidates in each village of this size a year.

Present staffing patterns (see Chapter V) call for one auxiliary nurse midwife and part of the time of a male health assistant for every 10,000 people, which would include, say, 8 to 10 villages.

If family planning services were the only task, this does not appear to be an insolvable load. However, the present GOI program is intended to provide family planning as part of an integrated maternal and child care program at the local level, and the ANM is responsible for all MCH services too. Looked at from this point of view, the backlog is never really used up, and the ANM will, year after year, have not 70 to 90 husbands or mothers but virtually all the 1800 mothers and their 4000 children in her 8 to 10 villages as her continuing MCH-Family Planning program responsibilities.

II. THE GOI PROGRAM: PROGRESS TO DATE

The Indian Government was among the first officially to endorse and finance family planning as a national goal, beginning as early as 1951 in the First Five Year Plan. The earliest efforts were designed experimentally to explore whether there were major attitude barriers to the adoption of contraception as well as to determine the most effective contraceptive approaches. 1/

In 1958 the GOI officially endorsed sterilization as a main method of contraception and in 1960 began to provide financial compensation to the States for reimbursements of costs of the operations. In 1963 the GOI adopted an "extension" approach to extend contraceptive services beyond the public health clinic radius. In 1965, the IUD was added to the program, and in 1966 separate family planning organizations and staffs were set up beginning at the Center and extending through State, and District levels down to the block primary health center (PHC). However, Maternal and Child Health and Family Planning services continued to be integrated at the urban and rural PHC and subcenter levels.

The GOI is now concentrating its main emphasis and resources on sterilizations and IUD's. A greatly expanded condom program using commercial distribution channels is still in the offing 2/ and the acceptability of oral contraceptives is being carefully explored before a decision is made to add them to the national program. 3/

The following sections summarize progress to date for the country as a whole, and in the several States.

India is so large and its several States so greatly different from each other that it is almost a misnomer to describe the program in any "All-India" terms. It would be more accurate to say that India has, not one but seventeen different family planning programs.

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1. See Chapter III for detail on evolution of GOI planning and research.
 2. See Appendix A.
 3. See Appendix B.

This diversity should be kept in mind as a cautionary brake on the tendency to draw conclusions from any of the country-wide aggregates, provided in the sections below. These describe, first, overall program progress, and second, comparative performance in the various States.

A. Overall Program Progress

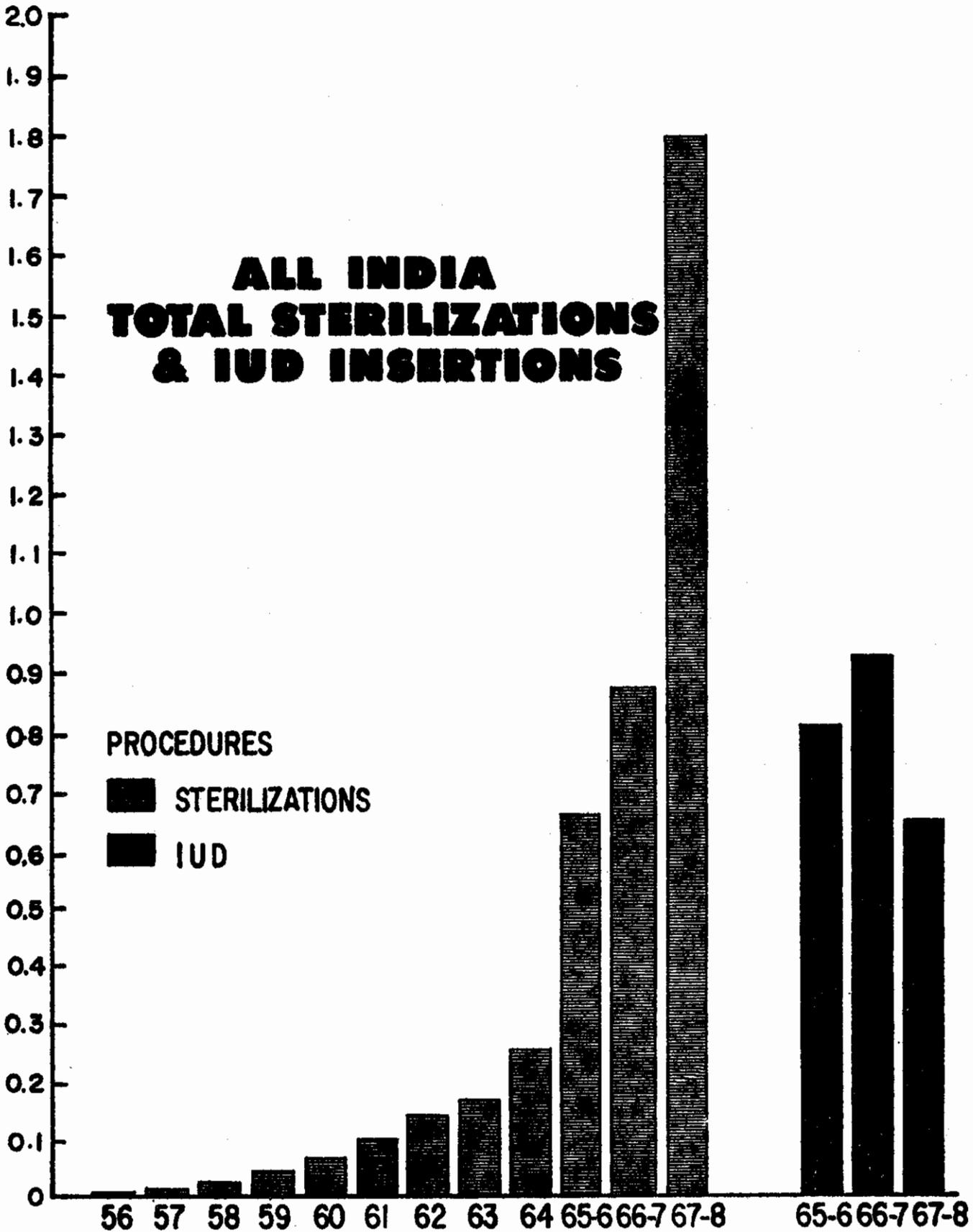
1. Sterilizations and IUD's

Although the program has a long history of official policy and activity, it was not until 1965-66 that the volume of contraceptive acceptors began rising to significant proportions. By April 1, 1968 the cumulative total of sterilizations had reached some 4.2 million and 2.4 million loop insertions had been reported.

How large a proportion of the total is accounted for by the past two years is graphically shown in the chart and table on the following pages. Some 1.8 million sterilizations, or 43 per cent of the thirteen year cumulative total, were done in 1967-68 alone.

Sterilization is the most effective and popular sector of the program so far, and is expected to progress rapidly in the next few years, primarily among the group of couples who already have four or more children. The IUD program slumped in its second year in part because of rumors, but also because the side effects which are common to the method (primarily bleeding) are not well tolerated in the Indian culture. As a result, only around half of the initial acceptors still retain IUDs after two years and, so far, the reinsertion rate is low. The chart and table on the following pages illustrate the program losses due to removals and expulsions. If midwives and other non-medical personnel are enlisted and trained in insertion and in follow-up, some improvement in the IUD program may be anticipated.

ALL INDIA TOTAL STERILIZATIONS & IUD INSERTIONS



STERILIZATIONS: FROM 1956 TO 1964 CALENDER YEAR FIGURES WERE USED. PROCEDURES FOR 3 MONTHS BETWEEN CY 64 & FY 65 ARE INCLUDED IN FY 65-6

GOI FAMILY PLANNING PROGRESS: 1956 - 1968

<u>Year</u>	<u>Sterilization Operations</u>	<u>IUD Insertions</u>	<u>Conventional Contraceptives *</u>
1956	7,153		
1957	13,736		
1958	25,148		
1959	42,302		
1960	64,338		
1961	104,585		
1962	157,947		
1963	170,246		
1964	269,565		1.0 million (1963-64)
1965	128,038		1.6 " (1964-65)
1965-66	542,779	812,713	2.2 "
1966-67	869,160	917,303	Not available
1967-68 **	1,792,451	649,647	Not available
Total	4,187,448	2,379,663	

* Rough estimates based on offtake.

** Up to March 1968 but not fully complete.

Source: GOI, Ministry of Health and Family Planning,
Department of Family Planning, June 1968.

LOOPS IN PLACE IN RELATION TO CUMULATIVE INSERTIONS & ESTIMATED LOSSES

BASED ON 10% INITIAL LOSS & 3% MONTHLY ATTENTION OF LOOPS IN PLACE

2.4 IN MILLIONS

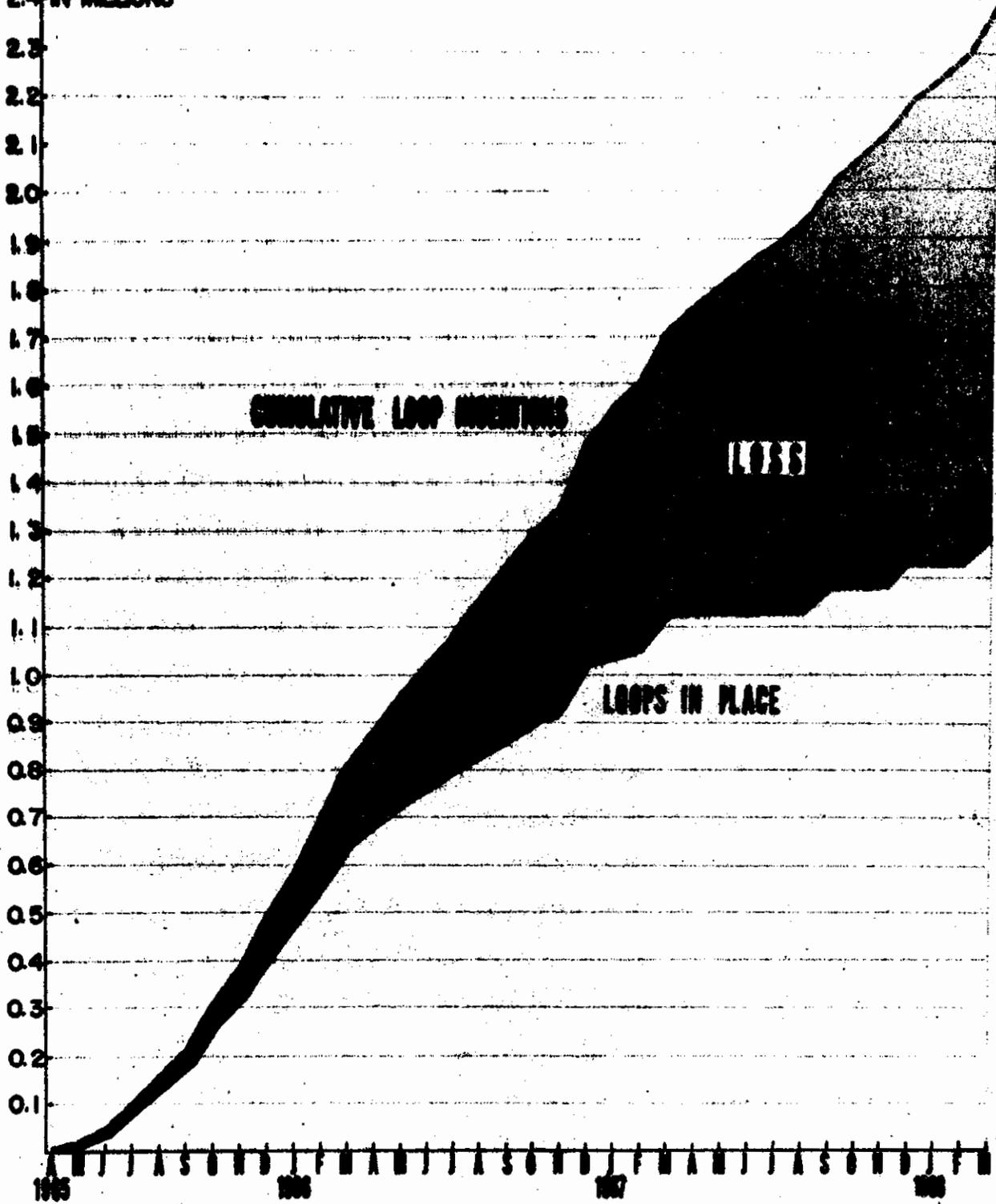
2.3
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

CUMULATIVE LOOP INSERTIONS

LOSS

LOOPS IN PLACE

1965 J J J A S O N D 1966 F M A M J J A S O N D 1967 F M A M J J A S O N D 1968 F



LOOPS IN PLACE IN RELATION TO INSERTIONS AND ESTIMATED LOSSES
BY MONTH

Year/Month	Reported Insertions Monthly	Losses 10% of insertions plus 3% of loops in place	Loops in Place Cumulative
1965	April 9,000	1,143	7,857
	May 8,000	1,252	14,599
	June 24,000	3,486	35,113
	July 50,000	7,403	77,710
	August 59,000	9,824	126,886
	September 57,000	11,046	172,840
	October 97,000	17,504	252,336
	November 73,000	16,841	308,495
	December 113,000	23,606	397,889
1966	January 91,000	23,494	465,395
	February 108,000	27,678	545,717
	March 124,000	32,120	637,597
	April 67,000	27,637	676,960
	May 68,000	28,945	716,015
	June 70,000	30,373	755,645
	July 70,000	31,559	794,086
	August 64,000	31,951	826,135
	September 78,000	34,690	869,445
	October 60,000	33,703	895,742
	November 53,000	33,603	915,139
	December 144,000	45,742	1,013,397
1967	January 61,000	38,149	1,036,248
	February 59,000	38,580	1,055,668
	March 123,000	47,291	1,132,377
	April 39,000	38,924	1,132,453
	May 40,000	39,054	1,133,399
	June 40,000	39,682	1,133,717
	July 41,000	39,219	1,135,498
	August 40,000	39,145	1,136,353
	September 95,000	46,156	1,185,197
	October 40,000	40,636	1,184,561
	November 45,000	41,252	1,188,309
	December 80,000	45,809	1,222,500
1968	January 40,000	41,755	1,220,745
	February 58,000	43,988	1,234,757
	March 92,000	48,727	1,278,030
TOTAL:	2,380,000	1,101,967	

Conventional contraceptives have been used on only a small scale so far -- an estimated 600,000 regular users annually -- but a mass program to subsidize commercial condom distribution through several hundred thousand retail outlets at a price less than a cent per condom is scheduled to begin this fall. This will be in addition to the planned expanded free distribution of condoms through clinics and health centers. (For whatever the reasons, the GOI does not list any estimate of conventional contraceptors for 66-67 or 67-68 in its own estimate of progress to date, as seen in the table on page 11.)

Not all the couples who cumulatively have been protected by past programs are still regular practisers. Many have discontinued using IUDs, condoms or other reversible methods because of their non-acceptability or ineffectiveness. In addition, many of those sterilized are no longer in the reproductive age group. After adjusting for mortality, aging and discontinuance, it is estimated that no more than 5 million couples are effectively contracepted now -- roughly 10 per cent of the couples who have had 3 or more live births.

2. Expenditures

The degree to which the program has been sharply stepped up in the past two years is also reflected in the trend of funds budgeted and spent between 1961/62 and 1968/69, as shown in the table and chart on the following pages.

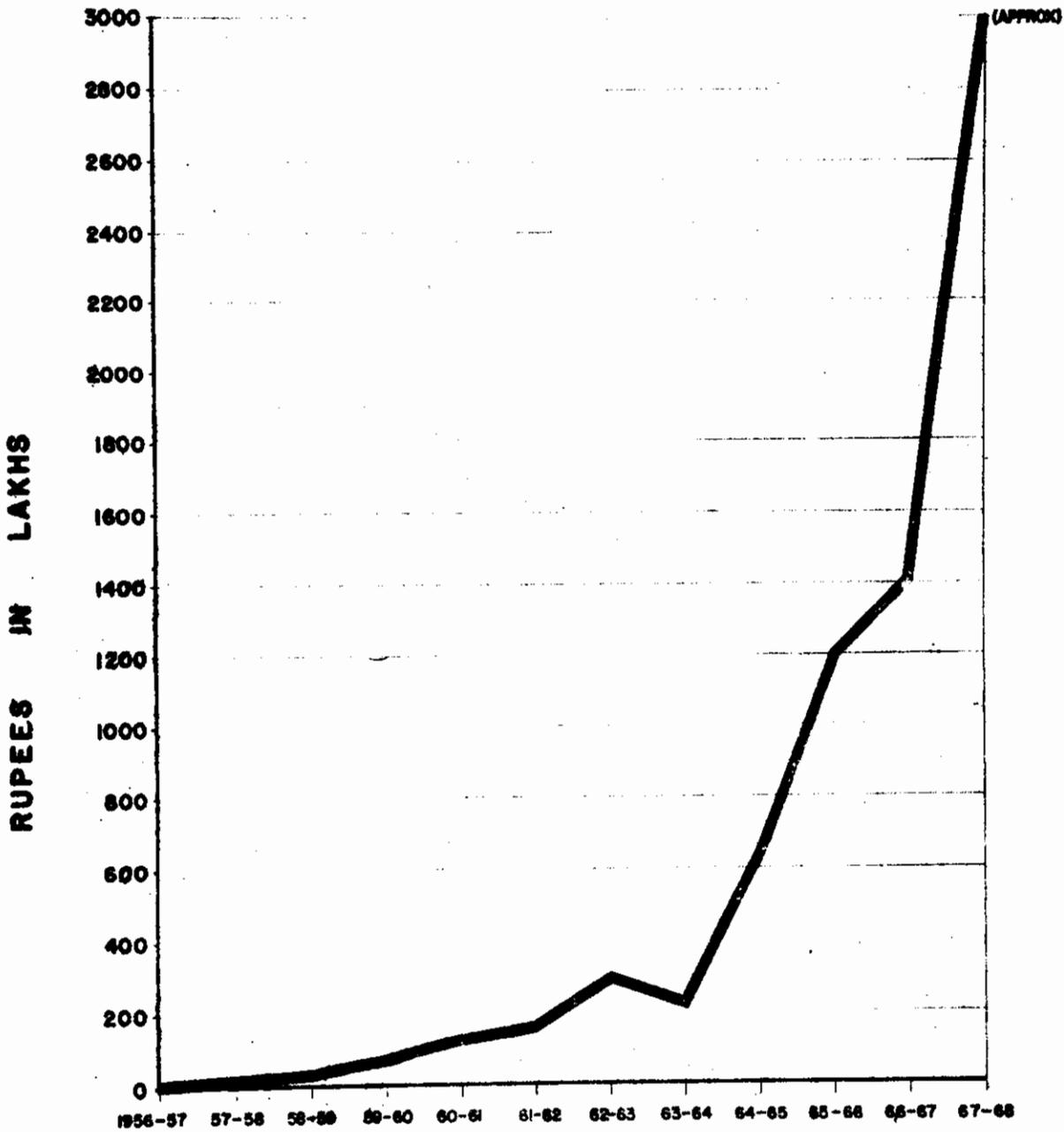
GOI FAMILY PLANNING EXPENDITURES

(in millions of rupees)

<u>Year</u>	<u>Budget Provision</u>	<u>Expenditure</u>
1961-62	35.5	11.5
1962-63	42.5	23.1
1963-64	27.8	13.1
1964-65	44.5	42.3
1965-66	63.0	74.3
1966-67	145.4	136.0
1967-68	311.6	292.4
1968-69	371.0	

Source: GOI, Ministry of Health and Family Planning, Department of Family Planning, Annexure I, in information supplied by Mr. D. N. Chaudri, Deputy Secretary, to Mr. J. P. Lewis, USAID/Minister Director, November 22, 1967. The 1967-68 and 1968-69 figures are from GOI, DEA, Ministry of Finance, Performance Budgets of Selected Organizations 1968-69, p. 29.

EXPENDITURE ON FAMILY PLANNING 1956-57 TO 1967-68



Expenditures for 1967-68 and Budget Estimates for 1968-69 are distributed among the following program activities (in rupees millions).

	<u>1967-68</u> (Rev. Est.)	<u>1968-69</u> (Budg. Est.)
Services and Supply (including monetary compensation for IUD insertions, sterilization, purchase and maintenance of vehicles.)	189.5	270.1
Research and Evaluation (including medical and bio-medical)	11.4	13.3
Mass Education and Publicity	30.6	30.2
Training	20.1	20.0
Assistance for F.P. Organizations at State and Local Levels	35.8	31.5
Policy Formulation and General Administration	49.0	58.1
	<hr/> 292.4	<hr/> 371.0

3. Clinic and Health Center Staff and Facilities

According to the latest GOI reports, about 95 per cent of the 335 district offices, 97 per cent of the programmed 1,854 urban family planning centers, and 94 per cent of the programmed 5,480 rural family planning centers have been opened, and staffing up is fairly well under way. Only 12 per cent of the rural block centers are still without doctors, although lady doctors are still in short supply. Each block clinic is to serve 80,000 to 100,000 population.

Below the block level, 42,000 subcenters (each servicing about 10,000 people) are being set up and about half of these have now reportedly been opened. However, only about 10,000 ANM's or their substitutes are reported to be in position, and it is doubtful if many more can be recruited to serve at the subcenter level. The GOI estimates that about 50,000 government staff workers are in place and believes that the remaining 75,000 which their program calls for will be placed in the next few years. 4/

4. Mobile Sterilization, IUD, and Audiovisual Facilities

Mobile sterilization and IUD facilities, operating out of district headquarters were created to offset the shortage of doctors willing to serve and live in rural areas. These services were supported by mobile audiovisual programs used for both general publicity and short-term training. There are now 335 mobile sterilization units available and operating throughout India, of which 94 were organized in the Indian fiscal year 1967/68. Similarly, 183 out of the 369 IUD units in operation were organized during the last year. Vans for this program were supplied by the Center along with an annual operating and maintenance allowance and, since the vans are still new, maintenance has not yet been a problem. The overall strengthening of the State Health Transport maintenance systems and the planned addition of more mobile vans will further improve this program. The planned addition of some 4,600 vehicles at the block level should also help to increase the radius within which the block public health center services can be supplied.

4. See Chapter V on Manpower for additional details.

5. Training

An initial crash orientation and short term training program has reportedly reached a total of 13,000 doctors (more than 2,000 of them during 1967-68) and 122,000 other workers, including community volunteers (44,000 of them during 1967-68.) This has been followed up by what appears to be a solidly based reassessment of training loads, priorities assigned among personnel to be trained, and a general reallocation of tasks geographically and functionally among the several Center, State and regional training institutions. These developments are discussed in detail in Chapter VIII.

6. GOI Prospective Plan 1967-68 to 1978-79

During the winter and spring of 1967-68, the Department of Family Planning engaged in extensive studies designed to translate the objective of reducing the birth rate to 25 by 1975 and 22 by 1979 into practical program terms. This plan and a preliminary assessment of its program implications are discussed in Chapter XII.

B. Comparative Performance in the States

All-India progress, of course, depends upon the combined progress individually achieved in all of the States. As noted above, the ranges in performance among them are so wide as to suggest that the use of All-India averages or medians is almost completely meaningless.

However, clues as to why some States show up with so much better records do exist and can provide some indicators as to what may be needed to increase the achievements in other states in the future.

The comparative performances of the several States as shown in the two charts on 20 and 21 have been ranked on the basis of the combined number of reported loops and sterilizations per 1000 population since the program began. The number of loops inserted has been adjusted downward by 50 per cent to take into account the estimated loss rate noted so far. Similarly, the number of sterilizations has been adjusted downward by 25 per cent to allow for aging and mortality.

FAMILY PLANNING PROGRESS IN THE STATES : COMPARATIVE PERFORMANCE

STATE	EST. POPULATION FOR 1967-68 ('000)	COMBINED LOOP & STER. RATE / 1000 ²	NUMBER OF LOOPS WITH .5 CONVERSION ¹	NUMBER OF STER. WITH .75 CONVERSION ²	LOOPS		STERILIZATIONS		% LITERAC. 1961 CENSUS		
					RATE / 1000	NUMBER 67-68	NUMBER TOTAL	RATE / 1000		NUMBER 67-68	NUMBER TOTAL
PUNJAB	13612	20.6	177795	103327	7.5	103196	355690	2.1	29462	137769	24.2
MAHARASHTRA	46776	13.9	151125	499484	.6	30422	302249	7.2	339697	665978	29.8
MADRAS	37686	13.3	10792	492210	.1	5608	21583	3.1	119661	656280	31.4
DELHI	3690	12.2	19193	26172	1.4	5124	38385	4.0	14908	34896	52.7
KERALA	19917	10.9	56046	162639	1.7	35615	112092	3.0	61426	216852	46.8
MYSORE	27490	10.0	102496	173323	1.4	41216	204991	3.9	109936	231097	25.4
GUJARAT	24671	9.9	71977	173912	.8	20393	143955	3.4	85073	231882	30.5
ORISSA	20321	9.5	26233	170519	1.6	34087	52465	3.8	79118	227358	21.7
HARYANA	9280	8.5	56729	22694	6.2	56001	113458	1.7	16670	30259	N.A.
WEST BENGAL	41719	8.4	130088	223583	.5	21418	260175	5.3	221478	298110	29.3
ALL INDIA ¹	514311	8.4	1189831	3140579	1.2	646641	2379663	3.4	1792461	4187438	24.0
MADHYA PRADESH	38104	8.1	45282	264158	.8	31757	90564	4.6	175859	352210	17.1
ANDHRA PRADESH	40925	6.3	57161	204401	1.2	51307	114321	4.0	166729	272535	21.2
JAMMU & KASHMIR	3900	6.0	11341	12411	1.7	6824	22682	1.2	4826	16548	11.0
UTTAR PRADESH	85421	4.9	127372	295166	1.2	102923	254743	1.8	159215	393554	17.6
ASSAM	14398	4.6	45188	22215	1.4	21346	90375	.2	3220	29620	27.4
RAJASTHAN	24335	3.8	26164	66643	.9	23738	52328	1.4	35742	88857	15.2
BIHAR	54104	3.6	38987	156084	.5	30101	77973	2.3	128481	208113	18.4
HIMACHAL PRADESH	3362	N.A.	8637	N.A.	2.2	7530	17274	N.A.	N.A.	N.A.	17.1

¹ TOTALS INCLUDE AREAS IN ADDITION TO STATES LISTED
² BASED ON TOTAL SINCE INCEPTION OF PROGRAM

Source: Progress of Family Planning, monthly report,
 Ministry of Health and Family Planning, May 10, 1968,
 (mimeographed)

FAMILY PLANNING PROGRESS IN THE STATES : COMPARATIVE PERFORMANCE

	URBAN FP CENTERS ³		URBAN MEDICAL INSTITUTIONS IN F.P.	MAIN RURAL FWP CENTERS ⁴		RURAL FWP SUB CENTERS ⁵	RURAL MEDICAL INSTITUTIONS IN F.P.	IUCD UNITS STATIC	IUCD UNITS MOBILE	STERILIZATION UNITS STATIC	STERILIZATION UNITS MOBILE
	TOTAL	% OF TARGET ACHIEVED		TOTAL	% OF TARGET ACHIEVED						
PUNJAB	91	144.4	0	127	109.5	60.9	159	217	11	97	7
MAHARASHTRA	182	68.9	118	521	121.7	81.7	1355	586	90 ⁶	469	90 ⁶
MADRAS	66	30.3	22	210	56.0	37.1	2106	37	0	454	0
DELHI	54	83.1	118	8	100.0	42.9	40	63	3	11	0
KERALA	35	58.3	0	158	97.5	102.9	0	166	9	74	9
MYSORE	57	46.3	211	265	100.0	92.3	679	0	19	21	19
GUJARAT	74	58.3	32	247	87.9	40.0	382	182	19	175	5
ORISSA	52	200.0	0	231	73.6	7.9	0	47	13	60	13
HARYANA	55	171.9	93	111	124.7	52.5	379	102	1	131	2
WEST BENGAL	148	72.2	13	439	128.7	48.9	77	552	17	23	18
ALL INDIA ¹	1806	97.4	1598	5130	93.6	45.5	7415	3461	370	3096	384
MAHAYA PRADESH	190	174.3	18	427	94.5	25.1	702	159	44	60	44
ANDHRA PRADESH	181	127.5	0	360	80.4	57.1	0	181	20	541	67
JAMMU & KASHMIR	5	98.5	0	42	60.9	8.9	15	52	3	60	3
UTTAR PRADESH	207	94.1	0	875	100.0	35.3	338	334	51	479	51
ASSAM	28	127.3	17	154	95.1	N.A.	460	257	25	45	13
RAJASTHAN	72	91.1	285	262	112.9	27.9	259	62	26	61	26
BIHAR	87	95.6	18	587	100.0	35.5	21	111	17	88	17
HIMACHAL PRADESH	22	550.0	29	51	70.8	6.3	366	41	1	54	0

³ ONE PER 50,000 URBAN POPULATION

⁴ APPROXIMATELY ONE PER BLOCK

⁵ ONE PER 10,000 RURAL POPULATION

⁶ COMMON FOR IUCD AND STERILIZATION

Since these programs presumably depend on the mobile as well as static facilities available as well as the number of urban and rural public health centers and subcenters, the achievements in these areas were also charted.

An intriguing and somewhat surprising finding is that there does not appear to be any significant correlation between the progress in infrastructure and program achievement.

For example, the first three States ranked according to combined sterilization and loop rate/1000 - Punjab, Maharashtra, and Madras - have quite different achievement rates for urban FP centers (144.4, 68.9 and 30.3 per cent respectively); main rural FWP centers (109.5, 121.7, 56.0 per cent respectively); and rural FWP subcenters (60.9, 81.7 and 37.1 per cent respectively). In addition some States which ranked near the bottom in performance made a respectable showing in achievement of targets. Bihar, which is on the bottom of the performance ratings, reportedly reached 95.6 per cent of its urban FP centers target and 100 per cent of its main rural FWP centers target.

A similar lack of correlation between performance and infrastructure is found with regard to mobile and static IUD and sterilization units. Madras, which ranks third in the combined loop and sterilization rate per 1000 reports no mobile units whatsoever, whereas Rajasthan which ranks second from the bottom has 26 units for loops and 26 units for sterilization. Maharashtra, which has the greatest number of static and mobile units for loop insertions, ranks 15th out of 18 States for loop insertions.

It is of course possible that this may be due to errors in the statistics reported -- whether of the base population on which the per thousand achievement is calculated, or in the number of couples contracepted by either method, or on the numbers of clinics and subcenters functioning. As noted in Chapter VI on Manpower, the scarcity of staff at subcenter level, even when planned positions are filled, especially raises some doubts as to what kind of services are or could be currently supplied.

Nonetheless, even allowing for such errors, the lack of correlation is interesting and suggests that, up to the present, success is probably due to factors other than infrastructure.

The one consistent correlation is with the level of literacy. All of the states above the India median for performance, except Orissa, had a literacy level above the All-India median for literacy. Also, all the states below the median for performance, except Assam, had a literacy level below the median for literacy. This is not a precise correlation; in other words, the number one and two states in performance are not the number one and two states in literacy, and, of course this kind of relationship appears to be generally present in other countries as well. However, in India it is a more critical factor because the costs of rapidly raising the overall levels of literacy, should this prove to be a key motivational variable, are very high.

Another area of correlation might be found between the administrative effectiveness of a state government and program achievement. Here administrative effectiveness is used in the broad sense of being able to carry out the functions of government with a relative degree of efficiency and dispatch. In consultation with the political officers in the Embassy on this matter, general agreement was reached that the states might be ranked according to administrative effectiveness in generally the same manner as they were ranked in the chart on program achievement. States such as Punjab, Maharashtra, and Madras which rank very high in performance are generally conceded to have fairly effective administrative organizations, whereas Bihar, Uttar Pradesh, and Rajasthan have had chronically poor administration for many years.

Why one state can vary so greatly in administrative capability from another state is an open question at the present time. Caste, religion, population concentration, and a multitude of other variable factors enter the picture which cannot be effectively measured here. Sometimes fortuitous circumstances affect the administration of a state. In the case of Bihar, for instance, the GOI appropriated many of the top administrators into the Centre after Independence, thereby leaving the State with second echelon administrators. Whatever the reasons may be for administrative effectiveness, however, the degree of correlation between the success of the family planning program and comparatively efficient state administration is significant and deserves to be taken into account when evaluating the prospects of family planning in India.

Somewhat more specific reasons for success can be identified by more closely examining the specific program emphasis and methods adopted state-by-state. Each state has adopted its own approach and, although none seems to have been copied by another, the outstanding successes may provide models for future progress.

Dr. Franz Rosa, USAID Health and Family Planning Division Chief from June 1966 to June 1968, identifies the following as the critical factors leading to successful programs.

With reference to states which have had the best records in loop acceptors, this appears to be because they exerted special effort to extend the services beyond the cities:

Some States did get beyond the cities: West Bengal by employing male doctors to put in the loops, Mysore by a strong mobile program, Assam in its tea estates, Kerala by well distributed health services, and most successful of all, Punjab, where Lady Health Visitors and Auxiliary Nurse Midwives were trained to insert loops in every block. These states have achieved [cumulative] loop in-place rates of between 3 to 12 per 1000 population. The remainder achieved these rates in the cities but had overall rates less than 3 per 1000 because of insignificant rural achievement (less than 1 per 1000). Madras never seriously pursued the loop program at all.

Later in 1966 there was gradual awakening to the fact that the slump in the loop was more than seasonal. However, the experts put full blame on side effects and rumors, and focused all of their discussion on trying to solve these unresponsive problems. Relatively little attention was given to accepting the loop for what it was worth and solving the bottleneck (shortage of lady doctors in the rural areas) to full logistical development of the program. Only in January of 1968 did the GOI endorse the training of auxiliaries for loop insertions, which can and may well result in the eventual achievement

of over 5 million loops in place instead of the present 1.3 million. Pakistan by using auxiliaries is already achieving this level, and Taiwan and Korea with better services and a better educated clientele have achieved far higher levels. ^{5/}

With reference to successful sterilization records, the reasons, again, differ state-by-state:

In the meantime, sterilizations progressed steadily (slowed only in 1965, by the shift in emphasize in the loop) and surged ahead in 1967. Here Madras State led the way. Since 1961, Madras had paid a special Rs. 10 fee to "cavassers" for each case brought in and Rs. 30 to each case. The program moved ahead rapidly. In 1963, when the fee-to-cavassers was dropped (but the payment to cases continued) the number of sterilizations dropped precipitously. When the fee-for-cavassers was reinstated, the program surged ahead again and in FY 1966-7, 230,000 sterilizations were done in that State alone.

In May of 1967, Maharashtra, dissatisfied with the low return they were getting from 1,600 peripheral salaried extension workers (who had been paid Rs. 740,000 salary in FY 66-7 for 65,000 referrals, a cost of more than Rs. 100 per referral), decided to follow the example of Madras. With the installation of the incentive fees, the Maharashtra program immediately zoomed, and in FY 1967-68 Maharashtra did 340,000 sterilizations in contrast to 66,000 in the previous year. This program is still regarded as "experimental," and the GOI withheld approval from other States that wanted to follow this pattern, in the April Central Family

5. Dr. Franz W. Rosa, M.D., End of Tour Report, USAID Airgram TOAID A-1624, June 28, 1968, 20 pp. Unclassified

Council Meeting, "until a full year's experiment is completed and evaluated in September." But it appears the importance of "private enterprise" has been demonstrated in the family planning program. ^{6/}

6. Ibid

III. GOI PROGRAM PLANNING AND RESEARCH FACILITIES

India's family planning program has moved through several fairly distinct stages since it was launched officially in 1951. In terms of basic infrastructure, the GOI has moved from an initially clinic based program to an expanded extension approach, with increased emphasis on providing mobile services at the district level to supplement the rural block and sub-center health center services. In terms of methods, official government program has shifted from initial experimentation with rhythm and foam tablets to national endorsement and financial support for sterilizations, IUD's and condoms.

To a far greater degree than is generally recognized, the major shifts were based on (or at least concur with) results obtained from an officially sponsored series of research and demonstration projects undertaken specifically for the purpose of program planning in advance of national action. Although there is a general familiarity with some of the better known research studies, there is less awareness of the deliberate initiation and use of these by the Government of India in its program development. As noted above, in 1967/68 the GOI spent Rs. 11.4 million on research and evaluation of its family planning program and has budgetted Rs. 13.3 million for this purpose in 1968/69.

The following sections summarize the development of the research program in relationship to the evolution of the national family planning program and the resulting institutional planning and research facilities and infrastructure.

A. Organization and Evolution of GOI Program Oriented Research

At the outset of the program in 1951, very little data was available for the Indian population regarding family planning knowledge, attitudes and practices based on which the national program could be developed. Therefore, the GOI set up a Family Planning Research and Programs Committee to develop research and pilot programs to test initial attitudes before major program decisions were made. This committee had two Sub-Committees, one on Socio-

economic and Cultural Studies of Population and the other on Biological or Qualitative Aspects of the Population Problem. Subsequently, in 1959, these were reconstituted as three advisory committees: Demographic, Family Planning Communication Action - Research, and Scientific Aspects of Family Planning. In 1967, the Demographic and Communication Action Research Committee were combined and, under the chairmanship of Dr. C.R. Rao, is responsible for coordinating and reviewing both programs in order to determine activities to be continued or newly launched with GOI financial support.

1. Initial studies to test knowledge, attitudes and practise^{1/}

The first set of studies which were launched under the Family Planning Research and Program Committee were designed to determine what if any resistance there might be in the Indian population to the use of contraception. The acceptability of rhythm and/or simple contraceptives, such as foam tablets and condoms were tested in a series of pilot projects carried out from May 1952 - March 1955, in Lodi Colony (an urban area in Delhi) and in Ramanagaram (a rural area in Mysore); in the India-Harvard-Ludhiana population study at Khanna, Punjab, 1953-1960; and in the Singur Study, near Calcutta, conducted from 1956 to 1962.

These studies showed that, while there was considerable readiness for family planning in both urban and rural areas, despite their comparative ease of use neither rhythm nor foam tablets were used continuously by initial acceptors, due to their low contraceptive effectiveness. Condoms proved somewhat more popular. The Singur study concluded that the "primary factor in the continued acceptance of a method of family planning is its effectiveness. Methods which are initially popular due to their simplicity in application or absence of interference with sexual satisfaction will be rejected by the community when they learn of their ineffectiveness or even partial effectiveness." ^{2/}

1. Much of the information in the following sections is drawn from the monograph by D.V.R. Murty, Studies in Family Planning, prepared for the meeting of ECAFE Working Group on F.P. Communications, Singapore 5-15, Sept. 1967, (mimeographed) CFPI, New Delhi, 58 pp.
2. K.K. Mathen, "Preliminary Lessons Learned from the Rural Population Control Study of Singur," in Research in Family Planning, Kiser C.V. (ed.), Princeton University Press, 1962, p. 45.

Meanwhile additional studies over a period from 1951-60, in Trivandrum, Poona and Madras, revealed increasing interest in and acceptance of sterilizations, male and female, as a preferred method of limiting family size. ^{3/} In 1958 the GOI approved, in principle, sterilization as a method of family planning and in 1960 started offering financial assistance to states and other agencies to support the program.

While such pilot projects were going on, many ad-hoc attitude studies were carried out in selected areas of the country. Dr. Agarwala has summarized most of the studies completed by 1960. ^{4/} These studies indicated that 70 per cent of married persons have favorable attitudes towards family planning, want few children and long spacing between successive live-births. Caste and religion did not appear to be directly related to the desire for acquiring knowledge of family planning. Except for a small minority, there was no organized religious opposition to family planning. Even amongst the objectors, the opposition was mostly towards certain methods and not towards a small-sized family. Although many people felt the need for limiting family size, only 10 to 20 per cent of the women in rural India had any knowledge of contraceptives and few of them had knowledge about how contraceptives could be easily obtained and much fewer had actually ever used any method.

2. Studies to test usefulness of the clinic approach

In view of the favorable attitude of the people, as revealed by these studies, the GOI assumed that widespread provision of information, advice and service regarding family planning would lead to its adoption by a majority of couples in the

3. R. A. Gopaldaswami, "Family Planning: Outlook for Government Action in India" in Research in Family Planning, op. cit., pp. 70-81.
4. Agarwala, S. N., Attitude Towards Family Planning in India, Institute of Economic Growth, Occasional Paper No. 5, Delhi (1962), cited in D. V. R. Murthy, Studies in Family Planning, op. cit., p. 4.

reproductive age groups. The number of public health clinics in rural and urban areas was rapidly expanded to a total of 1,649 by March 1961.

The clinic staff was expected to educate the couples through individual and group contracts and supply contraceptives to the willing couples. All the known methods of mass education were also used, although on a limited scale, to popularize family planning.

In 1963, a critical appraisal of the program was made by the Director General of Health Services. ^{5/} The cumulative routine progress reports from family planning clinics and the observations of informed officials and leaders in the program revealed that the clinic approach alone which depended on clients taking the initiative to come to the clinic failed to accomplish the goal of large-scale adoption of effective contraceptive methods necessary for a substantial reduction of birth rate. This fact was further substantiated by detailed investigations carried out in Bombay and Poona. ^{6/}

3. Shift to Extension approach and Communication-Action-Research to improve program components

Following through on recommendations in the 1962-63 report, the family planning program was re-organized in 1963 by adding the "extension approach" to the services offered in clinics. The re-organized program aimed at creating the three basic conditions needed for large-scale acceptance, namely (a) group acceptance of small family size; (b) adequate knowledge about family planning; and (c) availability of supplies which had a minimum of physical and psychological barriers. Under the "extension approach," the forces of group pressure were to be mobilized by involving the local leaders for the family planning education and service program, and the clinic worker was to work with and through the community rather than through primarily individual approaches.

5. Raina, B. L., Family Planning Program Report for 1962-63
Directorate General of Health Services, Ministry of Health,
New Delhi (1964).

6. D. V. R. Murthy, Studies in Family Planning, op. cit. p. 46.

Almost concurrently with this re-organization, in 1963 a Family Planning Communication-Action-Research (FPCAR) program was initiated, with substantial financial support and technical assistance from the Ford Foundation. The main objective of FPCAR was to build up an effective and practical program by conducting diagnostic studies aimed at discovering clues needed to improve the family planning program in all its varied aspects, conducting action-research programs to make use of the clues derived from the diagnostic studies, and continuous assessment of the program results.

So far, 15 FPCAR projects have been started in India. The list of these projects along with the institution in which each project is located and the area covered under action research and population taken up for the study in each project is given in the following tables on pages 8 to 10.

B. Organization and Development of Demographic Research and Training Institutions.

Concurrent with the evolution of program oriented research outlined in the previous section, increased attention was directed toward the problem of obtaining more accurate and up-to-date basic demographic data on which to gauge the size and nature of the population problem and impact of the family planning program.

The year 1951 which marked the launching of the First Five Year Plan was also the year of the decennial census. The increase in population since the previous census was staggering and had a sobering influence. On the recommendation first of the Planning Commission and the Family Planning Research and Programmes Committee, and thereafter of the Demographic Advisory Committee, a series of special demographic studies were launched with GOI Plan financing. Among these were (a) the study of couple fertility by the Indian Statistical Institute, Calcutta, based on the data collected in the 2nd and 4th Rounds of National Sample Survey; (b) the sample survey of Patna city to estimate the fertility and mortality rates, by Patna University; and (c) the demographic

INDIAN FAMILY PLANNING COMMUNICATION-ACTION-
RESEARCH (FPCAR) CENTERS AND PROJECTS

Institution in which project located and director or principal worker.	Name of Project	Area covered under action-research	Population taken up for study
1. Institute of Rural Health and Family Planning, Gandhigram	Gandhigram Project	(a) Education service and periodic evaluation; (b) Training; KAP studies	Rural population Health Assistant (FP) and Block Extension Educator
2. Demographic Training and Research Centre, Bombay, Dr. S. N. Agarwala	Bombay project	Education, service (in the beginning) and periodic evaluation, KAP, communication cost benefit analysis target setting.	Urban Population in Bombay.
3. Indian Statistical Institute, Calcutta Dr. (Miss) A. S. Gupta	Calcutta ISI project	Education, service and periodic evaluation; KAP and communication	(a) Employees in an institution in urban area (b) General population in Calcutta
4. Planning Research and Action Institute, Lucknow Mr. N. S. Haq	Lucknow project	Education, service and periodic evaluation KAP, communication	Rural population

Institution in which project located and director or principal worker	Name of Project	Area covered under action-research	Population taken up for study
5. All India Institute of Hygiene and Public Health, Calcutta Dr. (Mrs) Mukta Sen	Calcutta AII project	Education, service and periodic evaluation; KAP, communication	(a) Rural population (b) Urban population in Calcutta
6. Department of Social and preventive medicine, Lady Hardinge Medical College and Hospital, New Delhi Dr. D. Anand	Delhi LHMC project	(a) Education and service in a hospital setting (b) Teaching KAP.	House Surgeons nurses and patients visiting the hospital Medical under graduates.
7. Central Family Planning Institute, New Delhi Lt. Col. B.L. Raina	Delhi CFPI project	(a) Education and periodic evaluation (b) Education and service through commercial channels KAP, communication	Rural population District, including urban and rural
8. Department of Statistics University of Kerala, Trivandrum Dr. (Miss) A. George	Trivandrum project	Education in collaboration with medical college and periodic evaluation	Rural population
9. Gokhale Institute of Politics and Economics, Poona Mrs. Kumidini Dandekar	Poona Project	Periodic evaluation of the on-going programme KAP, target setting	Urban population of Poona

Institution in which project located and director or principal worker.	Name of project	Area covered under action-research	Population taken up for study
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10. V. T. K. Krishnamachari Institute of Rural Development, M. S. University, Baroda Dr. Kavoori	Baroda VTK project	(a) Methods of training and evaluation of training (b) Evaluation of FP programme	Block Extension Educators District population including rural and urban
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11. Indian Nursing Council New Delhi	Delhi INC project	Training and evaluation of training	Nurse trainees
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12. Department of Child Development, M. S. University, Baroda	Baroda CD project	Family size norms	Rural population
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13. Department of Social sciences and Humanities, Indian Institute of Technology, Kanpur Dr. P. K. Kelkar	Kanpur project	Family size norms, KAP	Industrial population
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14. Department of Psychology, Patna University, Patna Mr. S. M. Mohsin	Patna project	Family size norms	Urban population
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15. Department of Applied Economics, Utkal University, Bhubaneswar Dr. B. Misra	Barpali project	Education and Evaluation, communication	Rural semi-industrial population
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Source: D. V. R. Murthy, Studies in Family Planning in India, C.F.P.I, New Delhi, Paper prepared for the meeting of ECAPF Working Group on Communication Aspects of Family Planning, Singapore, 5-15 September 1967, 58 pp. mimeographed. Supplemented with information from a staff memorandum prepared by DTRC, Chembur, on "Demographic and Family Planning Research Conducted by Various Research Institutions in India," April 1968, hectographed.

survey of six villages undertaken by Gokhale Institute of Politics and Economics, Poona. ^{7/} Socio-economic surveys of key urban areas were also requested by the Committee and financed under the Plan, beginning in 1954. These have been carried out in the following 21 cities: Agra, Allahabad, Aligarh, Amritsar, Baroda, Bhopal, Bombay, Calcutta, Lucknow, Madras, Poona, Surat, Cuttack, Delhi, Gorakhpur, Hyderabad, Hubli, Jaipur, Jamshedpur, Kanpur and Vishakhapatnam.

In addition, however, the importance of creating new institutions to conduct research and to train the professional cadre needed to collect and analyze the basic data was recognized at an early stage. The Demographic Sub-Committee, reporting to the Central Family Planning Board, recommended establishment of additional demographic research centers in different parts of India to be responsible for conducting studies, on fertility and mortality and associated factors. Accordingly, beginning in 1956, ten demographic research centers were established under grants from the GOI during the Second and Third Five Year Plan Period, located at Bombay, Delhi, Calcutta, Trivandrum, Dharwan, Poona, Madras, Lucknow, Patna and Baroda.

The DTRC in Chembur holds a special place among these, having been established in 1956 under the joint sponsorship of the GOI, the United Nations and the Sir Dorabji Tata Trust as an Asian Regional Center to train personnel from the Far Eastern countries in the field of demography and related research. (Rs. 1.8 million out of the total of Rs. 13.3 budgeted for research in 1968/69 is accounted for by DTRC alone.)

A number of private research institutions are also actively engaged in fertility surveys, manpower studies and other demographic research, among them the Institute of Manpower Research and the National Council of Applied Economic Research in New Delhi. These

7. Report on Demographic Training and Research in India under the Guidance of the Demographic Advisory Committee, published by the Directorate General of Health Services, Ministry of Health, New Delhi, August 1965, (81 pp.) p. 2.

are listed in the table on the following pages 37 to 38, with the name of the Director or principal workers and the general areas of research in which each is currently engaged.

A summary of listing of demographic and family planning research studies conducted by FPCAR and Demographic Research Centers is given in the Appendix to a memorandum entitled Facilities for Demographic Training and Research in India, (hctographed, 24 pp., plus Appendix 18 pp.) prepared in April 1968 by the Staff Members, Demographic Training and Research Center, Chembur, assisted by Dr. S. N. Agarwala and Dr. James J. Maslowski. A similar, but more detailed and annotated listing of research conducted by the demographic centers is included in the Ministry of Health Report: Demographic Training and Research in India, cited above on page 35.

INSTITUTIONS ENGAGED IN DEMOGRAPHIC RESEARCH IN INDIA

Name of the Center / Institution	Name of the Head or Principal Worker	Areas of Research Activities
1. Demographic Training & Research Center, Bombay. (1956)	Dr. S.N. Agarwala	Fertility, nuptiality, migration, family planning attitude, communication and evaluation, mortality, population simulation model.
2. Demographic Research Center, Indian Statistical Institute, Calcutta. (1957)	Mr. M.V. Raman	Fertility, family planning, mortality
3. Demographic Research Center, Institute of Economic Growth, Delhi. (1957)	Mr. P.B. Desari	Family planning and urbanization
4. Demographic Research Center, Bureau of Economics and Statistics, Govt. of Kerala, Trivandrum. (1958)	Dr. R.S. Kurup	Family planning, fertility
5. Demographic Research Center, Institute of Economic Research, Dharwar. (1961)	Dr. B.D. Kale	Fertility, demographic surveys of cities
6. Demographic Research Center, Gokhale Institute of Politics & Economics, Poona. (1963)	Mrs. K. Dandekar	Fertility, family planning demographic surveys.
7. Demographic Research Center, Madras. (1964)	Dr. S. Chandrasekhar	Fertility, demographic surveys

Contd.....

Name of the Center / Institution	Name of the Head or Principal Worker	Areas of Research Activities
8. Demographic Research Center, Lucknow Univ., Lucknow, (1965)	Dr. (Miss) L. Z. Hussain	Fertility, demographic surveys of villages, life tables, population and projections
9. Demographic Research Center, Patna University, Patna. (1965)	Dr. M. L. Srivastava	Fertility, family planning, demographic surveys.
10. Demographic Research Center, M.S. Univ., Baroda	Dr. (Mrs.) Indira Bhanot	Demographic surveys
11. Department of Statistics University of Kerala, Kerala	Dr. (Miss) A. George	Fertility, fertility surveys, family growth study
12. Institute of Manpower Research, New Delhi	Dr. S.P. Agarwal	Area Manpower Surveys, manpower studies.
13. National Council of Applied Economic Research, New Delhi	Mr. Bhoothalingam	Population projections, city surveys.

Source: Facilities for Demographic Training and Research in India.

Prepared by Staff members DTRC, Chembur, April 1968, (hectograph) 24 pp.

C. Medical and Bio-Medical Research

A third area of research financed by the GOI under its family planning budget is medical and bio-medical research. Responsibility for reviewing progress and recommending further expenditures and new activities lies with the Expert Group on Scientific Aspects of Family Planning, under the Indian Council on Medical Research.

The studies being conducted in medical research institutions throughout the country under this program include investigation into side effects and methods of improving IUDs, oral pills, immunobiological studies, and preparation of oral contraceptives from indigenous herbs, traditionally used by practitioners of indigenous systems of medicine. ^{8/} The amount included in the GOI 1967/68 budget for research in this field amounts to Rs. 1,813,000.

A substantial amount of foreign technical assistance and support has been provided in the past by the Ford Foundation, through institutional grants totalling about \$2 million since 1962. These have been allotted to such institutions as the All-India Institute of Medical Sciences in New Delhi, the Central Drug Research Institute in Lucknow, the University of Delhi, the Institute of Agriculture in Anand, Mysore University, Kerala University, Rajasthan University, Indian Institute of Science in Bangalore, and the Institute of Obstetrics and Gynecology in Madras. ^{9/}

In addition, the U.S. Department of Health, Education and Welfare finances^a substantial number of projects in bio-medical and other research related to family planning, through the PL 480 Special Foreign Currency Research Program. For example, a project on "Research on vegetable protein supplements and Protein Malnutrition at the Central Food Technological Research Institute

8. See pp.82ff below for more detail on research in indigenous methods.

9. The Ford Foundation and Foundation supported activities in India and Nepal: Summary of Grants from 1951 to January 1, 1968, published by Ford Foundation in India, 32 pp.

in Mysore is receiving a total of Rs. 8,327,342 over an eight year period beginning in 1961 and Rs. 3,042,000 has been allotted for a study of nutritional deficiencies in Southern India, conducted by the Christian Medical College in Vellore. 10/

USAID has provided only marginal assistance for this program directly, but the Chief of the Division and other USAID technicians have maintained close professional relations with the ICMR officials and other Indian medical researchers. In FY 1968 \$50,000 was obligated for foreign exchange costs of miscellaneous supplies for the Indian Council on Medical Research.

10. See report prepared by NIH Science Office, American Embassy, New Delhi, Active and Pending Bio-Medical Research Agreements in India, mimeographed, June 30, 1968, 18 pp.

D. Official GOI Program Planning and Evaluation Facilities

The census of India for 1961 is the source for all the official estimates of birth and death rates, parity and age distribution and other basic demographic data. The main official GOI institutions engaged in analyzing and further supplementing the census data are the Office of the Registrar General, which is also responsible for the National Sample Registration Scheme, and the Central Statistical Office which (through the agency of the Indian Statistical Institute) carries out the National Sample Survey.

However, the major responsibility for both developing and analyzing specific family planning program data on an All-India basis lies with the Department of Family Planning, which up to the present time has had limited in-house staff resources for intensive analysis and evaluation, but has delegated the largest part of this task to the Central Family Planning Institute under the directorship of Lt. Col. B. L. Raina.

In June 1968, Dr. G. P. Sen Gupta was appointed Deputy Commissioner for Program and Intelligence in the Department of Family Planning, filling a position which had been vacant since the Department was set up as a separate entity, reporting to the Commissioner, Dr. Dipak Bhatia. It is possible that substantial additional staff resources will be added in the near future.

The Department of Family Planning issues a monthly set of statements giving data, by States and Union Territories, on population, Family Planning sanctioned staff in position at State and District levels, the numbers of urban and rural family welfare centers required and functioning, sterilization and IUD program progress, and the number of persons trained in various courses. This is the main periodic report made available to USAID up to the present. An Annual Report is issued by the Ministry of Health which contains considerable detail on the program, ^{11/} and this year

^{11.} GOI Ministry of Health, Family Planning and Urban Development, Report 1967-68, printed by GOI Press (Faridabad) 1968, 237 pp. plus graphs and appendices.

for the first time, the Ministry of Finance published a "Performance Budget" which included a descriptive summary of Family Planning expenditures by program and activities. ^{12/}

The Central Family Planning Institute, which was created in 1962 as an agency to serve as a technical resource for the family planning program, was declared autonomous in 1965, but up to the present has continued to be the primary technical and evaluative arm of the Family Planning Department under whose budget its capital and recurring costs are paid. To the extent that any All-India analyses have been undertaken, they have been done by the CFPI staff.

Among the All-India evaluation studies recently completed by CFPI are

- * An Analysis of Data on IUD Cases, by D. V. R. Murthy (Assistant Director), P. S. Mohaptra (Senior Research Officer), A. K. Prabhakar (Investigator), a review of data from 20,965 IUD cases from 19 centers throughout India, (completed in mid-1957).
- * An analysis of 27,000 cases of sterilization (not available in USAID).
- * The Family Planning Programme in India: Retrospect and Prospect, by Lt. Col. B. L. Raina (CFPI Director) and G. R. Amritmahal (Assistant Director, CFPI) 24 pp. 1968.
- * Studies in Family Planning in India, D. V. R. Murthy, an analytical historical review of FPCAR and other studies, with special reference to communications research, prepared for the ECAFE Working Group on Communications Aspects, Singapore 5-15 September, 1967.

12. GOI, Department of Economic Affairs, Ministry of Finance, Performance Budgets of Selected Organizations 1968-69, GOI publication 310 Finance, April 4, 1968, pp. 25-32.

In addition to evaluative studies, CFPI also has had heavy responsibilities in training ^{13/} and other program development activities. In 1965, CFPI developed the Standard Fertility Survey Manual, used in five studies currently underway. In 1966-67, in collaboration with Dr. C. Chandrasekhar, U.N. Advisor on population policies in the ECAFE region, a new basic record system has been developed and recommended for country wide adoption. A coupon referral records system was also developed and recommended for country wide use, to speed up payments to clients, canvassers and physician as well as provide basic program data. The extent of adoption by the various states is not yet known.

An idea of the wide variety of efforts undertaken can be gained from a recent published review by the CFPI of its own activities. ^{14/} This includes intensive pilot studies, a post card vital registration scheme, multiple workshops, mass communications studies, film strips, printing and publishing. The workshops included one on Reproductive Biology, in collaboration with the Indian Council of Medical Research, for which a technical report is still being prepared.

13. Although these are now being rationalized on a geographical and functional basis, as described in Chapter VIII.

14. Central Family Planning Institute, New Delhi. A Brief Note on Organization and Activities, 20 pp. (offset) 1967.

E. USAID Contribution

1. Demography

Demography is important to family planning in India for the information it provides administrators for their use in decision making. This means demography that is program and action oriented, especially in terms of the planner/administrator's needs to translate population growth targets into time phased program components and to evaluate program design and performance relative to impact on population growth rates.

USAID's FY 1968 program reflects the solid technical assistance relationships and support developed with DTRC, Chembur, by the USAID Demographer, Dr. James Maslowski, who will continue this support during his next tour as a senior advisor and member of the staff of DTRC, under the USAID project agreement with that institution. DTRC is expected to continue to take the lead in demographic research which supports the planning needs of the Department of Family Planning.

A recent development offers the prospect of an additional and increasingly useful relationship of USAID demographic input and GOI demographic needs. In the absence of solid, creditable measure of the GOI family planning program in relation to specific birth rate targets, the USAID asked for the short-term services of a demographer (Dr. George Stolnitz) to evaluate the GOI program in terms of the specific contributions to reduced fertility. Coincidentally, the MOH/FP was also seeking independent demographic evaluation of its program projections. The GOI Joint Secretary for Family Planning and the USAID demographic consultant were brought together in early June 1968. The JS asked for the same information USAID had brought the demographer to India to develop. A report from Dr. Stolnitz is expected by September. He has informally presented his findings to the Joint Secretary as well as to USAID. It is hoped that the dialogue with the Joint Secretary will be the start of a continuing mutual involvement. ^{15/}

15. See Chapter XII for brief description of the approach taken by Dr. Stolnitz

2. Oral Contraceptives and Condom Projects

Unless and until new technological breakthroughs occur, the only two remaining contraceptive devices which have good effectiveness if carefully and faithfully used and which might practicably be introduced widely in rural areas in India, are pills and condoms.

As is clear from the record of the GOI program to date, up to now neither the Center nor the States have been ready to disburse scarce manpower resources more widely than to concentrate on sterilizations and IUD programs. The two USAID projects on oral contraceptives and condoms appropriately belong in the area of assistance to the GOI in program planning and experimentation. Appendices A and B at the end of this Annex outline in some detail the background and progress of these two projects. Whether or not the GOI decides seriously to pursue them will depend on their results.

3. Selected Areas and Intensive Districts

Two recently agreed to USAID-GOI activities are directly related to GOI program planning efforts. Neither of these is without precedent since intensive pilot and demonstration projects have been sponsored by the GOI for more than a decade, most particularly within the framework of the Family Planning Action-Communication-Research program. However, these represent the first formal USAID involvement, as well as the first country-wide approach by the GOI.

USAID discussions with the GOI on expanded experimentation in several districts in Uttar Pradesh began in January 1967 and continued throughout the year. Subsequently, in January 1968, the GOI Department of Family Planning developed a country-wide proposal for 17 districts, one in each of 13 states, and two each in Bihar and U.P., the two most populous states, to demonstrate progress achievable with full staffing and resources up to the limit of the presently authorized manpower and program pattern, and USAID assistance has been incorporated in this proposal. (The communications inputs are outlined in Chapter X))

USAID technical resources which are intended to be available full time for the Selected Areas project are a sociologist and a nurse. The workplan for the 17 intensive districts does not include any formal provision for technicians, but it is understood that USAID technicians in India, including a Family Planning Generalist and an Information Officer yet to be recruited, will be utilized. The GOI will appoint a counterpart for USAID technicians, with whose assistance the program can be developed.

These two projects should provide an immediate opportunity for coordinated use of the existing GOI demographic and program-oriented research facilities, as well as their training institutions already in place, to establish baseline studies and continuing program evaluation. This would appear a logical step quite apart from the practical problem of how thinly USAID or GOI technicians can spread themselves over ten districts, totalling 22,000,000 population in Uttar Pradesh, or 17 other districts countrywide.

IV. ORGANIZATION AND ADMINISTRATION

As pointed out in a previous chapter, there has been an increasing determination by the GOI over the past sixteen years to bring down India's rate of population growth. Particularly since 1963, the government's concern has been translated into a broad program designed with six basic tasks in mind:

- * Community educational work, which can produce the group support needed for adoption of family planning and provide specific information about contraception.
- * Supply of contraceptives through channels which pose the least possible psychological or physical barriers to obtaining them.
- * Provision of clinical services to those individuals who may have some special problem requiring a clinic visit.
- * Provision for statistical evaluation of programme impact on birth rate and on certain other indicators of effect.
- * Overall administrative coordination and support; and
- * Training. ^{1/}

The overall development of this plan has been primarily a function of the Center but ideas from the several states, formally through councils and committees and informally through visits, conversations, and observations have brought about many changes and improvements which have entered into and become part of the existing plan of action developed by the Center. About 95 per cent of the financing for family planning throughout the country is provided by the Central Government. Implementation of the program, on the other hand, rests almost entirely with the States and their constituent parts: The districts, blocks, and villages, as well as the towns and cities.

1. Family Planning Programme: Report for 1962-63, published by the Directorate General of Health Services, Ministry of Health, New Delhi (1964) 130 pp.

A. Organization

1. Center Organization

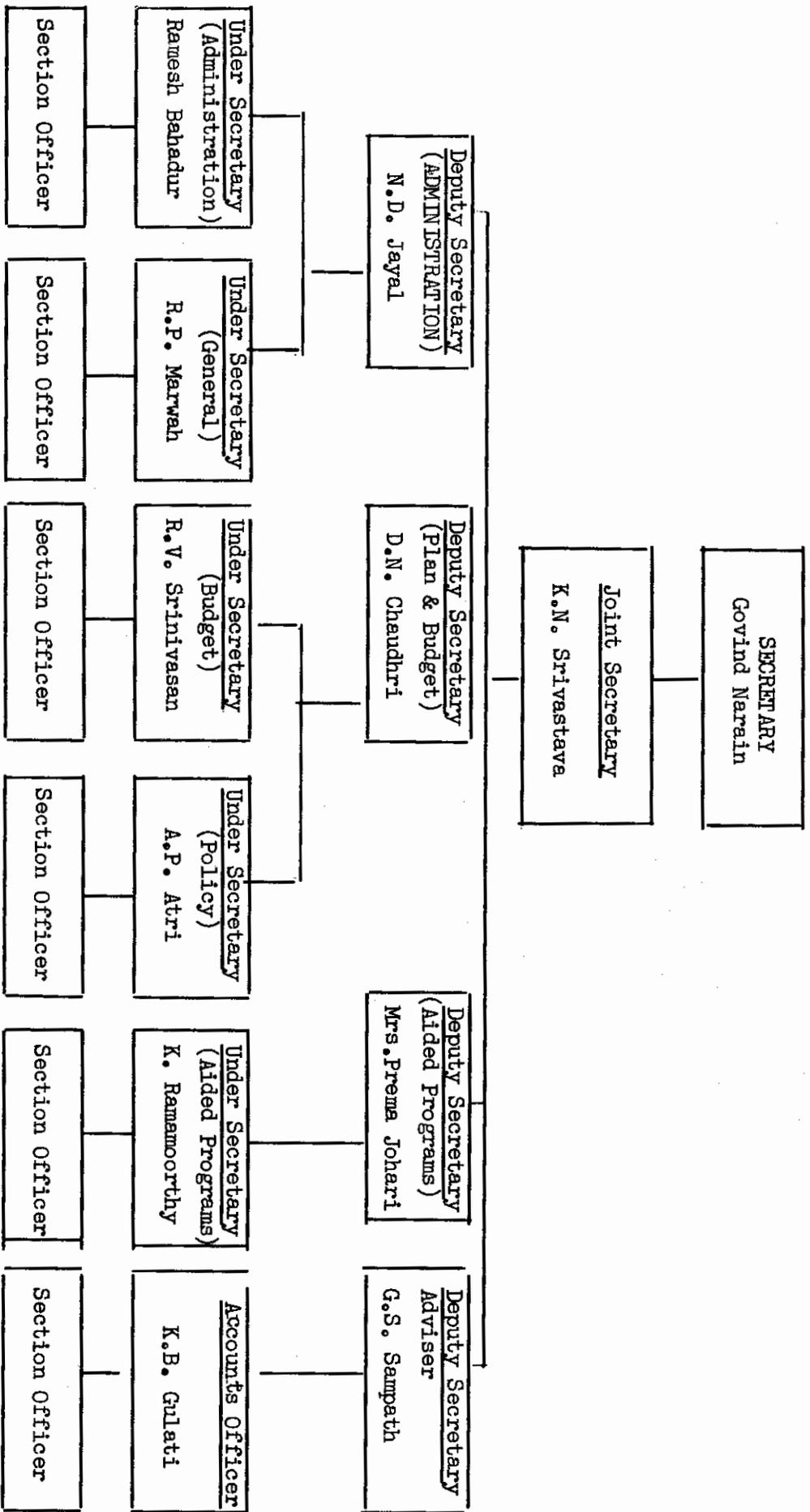
Table 1 presents the way in which the administrative wing at the center is structured and names the present incumbents down to the section officers. Table 2 outlines the technical wing: the Commissioner, (who is directly responsible to the Secretary) his Deputies and Assistants. The magnitude of the family planning program in India would seem to justify more extensive staffing in both the administrative and technical wings, particularly in view of the fact that few, if any, major policy or operational decisions are made in any of the states without prior clearance by the Commissioner and the Secretary.

2. Regional Organization

To facilitate the communications between the center and the states, regional offices have been established. These are the responsibility of Regional Directors, who have the rank of Assistant Commissioners, presently assigned as follows:

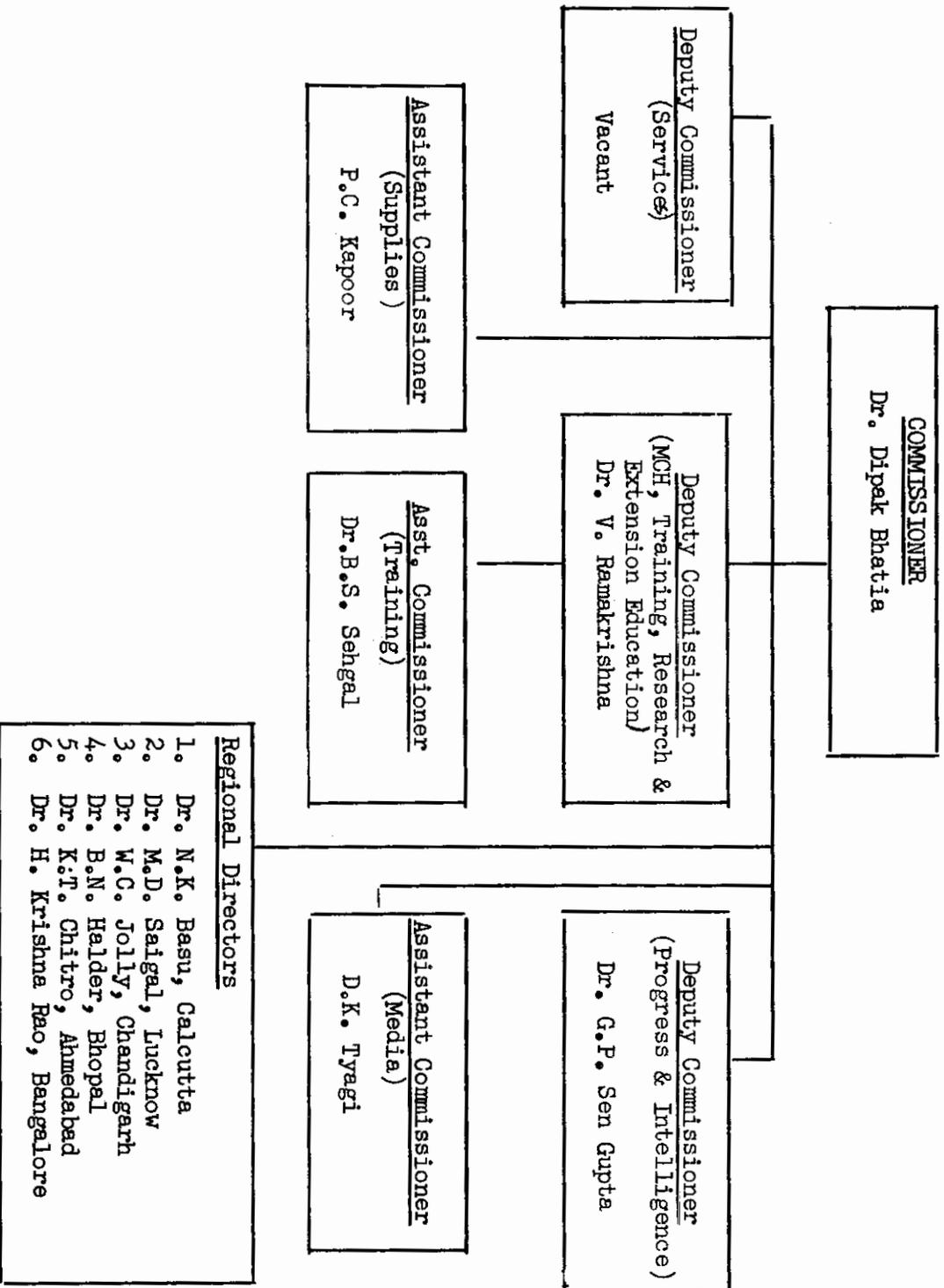
ADMINISTRATIVE WING OF THE DEPARTMENT OF FAMILY PLANNING

TABLE I



TECHNICAL WING OF THE DEPARTMENT OF FAMILY PLANNING

TABLE II



<u>Regions</u>	<u>Regional Directors (Assistant Commissioner)</u>
1. Eastern	: Bihar, West Bengal, Assam, Manipur, NEFA, Nagaland, Andaman & Nicobar Islands (Dr. N. K. Basu, Calcutta)
2. Northern	Uttar Pradesh (Dr. M. D. Saigal, Lucknow)
3. Northwestern	Punjab, Haryana, Chandigarh, Delhi, Rajasthan, Jammu & Kashmir, Himachal Pradesh (Dr. W. C. Jolly, Chandigarh)
4. Central	Madhya Pradesh, Orissa (Dr. B. N. Halder, Bhopal)
5. Western	Maharashtra, Gujarat, Goa (Dr. K. T. Chitro, Ahmedabad)
6. Southern	Mysore, Madras, Kerala, Andhra Pradesh, Pondicherry, Laccadive, Minicoi and Amindivi Islands (Dr. H. Krishna Rao, Bangalore)

The Regional Directors have no administrative or supervisory authority over state family planning officers; their function is consultative and persuasive only. But theirs is a vital role in both program planning and implementation and the success they have is largely a reflection of each director's ability to establish rapport with state family planning bureau officers, as well as with officers at the district level.

In all cases, except the northern region, regional directors are responsible for three or more states and territories, a situation which dilutes their potential effectiveness because of the vastness of the area to be covered. This has prompted some to urge that the number of regions be increased from the present six to ten or even twelve. It has also been suggested that each Regional Director's staff be expanded. There is merit in both suggestions.

3. State Organization

Even though more rigid Central planning could contribute to a more uniform program pattern throughout India, thus far each state has selected parts of the available program to create a program which

State authorities believe will do the job in family planning and at the same time, perhaps, solve other problems. The pattern therefore differs from State to State and within States so that program details for each state, district, block, city or elsewhere can be learned only by visiting these places and/or by studying the documents from the states accumulated in the GOI Department of Family Planning.

It is not possible in India -- as it is in countries where the government is centralized -- to develop a single family planning organization which functions from the central government down to the clinic and home with closely inter-relating parts. Since the Central Government cannot compel States to provide services, the utmost in diplomacy, effective consultation and imaginative use of grant-in-aid funds are required to encourage full participation by each state in the national program.

Although programs vary state by state at the same time they all are patterned in basic structure on the guidelines established by the Center, as shown in the accompanying table.

B. Financing

1. Center Financing Procedures

The Center presently finances 100 per cent of non-recurring costs of the family planning program and 90 per cent of all recurring costs other than contraceptives, sterilization facilities, education, training, and research for which the subsidy is 100 per cent. A scale of payments has been established for items of the program with a maximum limitation for any item of Rs. 50,000. The Center has promised that this assistance will continue until 1976. (See pp.¹⁵ above for past expenditures and current budget.)

The ten year limitation on assistance has created apprehension in the states that the anticipated high levels of expenditure that will have been generated by 1976 will subsequently need to be carried by their own resources. As a result no state has created a permanent department of family planning and very few of the states have created permanent posts for the family planning program.

Several states have already requested that the GOI incur 100 per cent of all program costs, stating that they are unable to support 10 per cent of the recurring costs from their own budget. A recent (August 1968) report alleged that the Center had decided to finance 100 per cent of all costs but this has not been officially confirmed.

Recognizing that the nature of the problem requires experimental approaches and emergency actions, the GOI has established in the Ministry of Health and Family Planning a Board composed of the Secretary of Health, Family Planning and Urban Development, the Joint Secretary of the Department of Family Planning, the Commissioner of Family Planning, and the Joint Secretary, Ministry of Finance attached to the Ministry of Health, Family Planning and Urban Development. This newly established Executive Board, which has greater flexibility of action than is permitted by routine Government procedures, may prove to be a step toward overcoming many of the more troublesome brakes on

effective decision making by the Ministry. The Board was established by GOI resolution #4-7/68 dated 16th January 1968, pertinent parts of which follow:

Resolution

" The Government of India consider that in the interest of the speedy implementation of the Family Planning Programme and of proper and expeditious utilization of international assistance for the various family planning projects, an effective and speedy mechanism should be evolved for taking day-to-day decisions and giving necessary financial clearances. It has, accordingly, been decided that for considering and clearing of experimental projects in the field of family planning, a high powered board should be constituted.....

" The following types of cases are referred to the Board:-

- (a) Schemes relating to experimental projects in the field of family planning costing more than Rs. 5 lakhs each.
- (b) Schemes for the utilization of foreign assistance in the various family planning projects.
- (c) Any other work which may be entrusted to the Board by the Government from time to time.

" The Board shall have full powers of decision making and granting financial sanctions within the budget provisions in respect of items other than (b) above. In respect of item (b), the expenditure will be limited to the amount of international assistance as cleared by the Department of Economic Affairs of the Ministry of Finance.

" The agenda to be considered at each meeting of the Board is circulated to the members of the Board at least a week in advance of its meeting. In case of disagreement on any matter in the Board, the matter will be referred to the Ministers in the respective Ministries for decision. "

Every three months the Board is to prepare a report for the GOI and USAID which will 1) list the type and number of activities approved during the quarter by the Board, showing the total amount of USAID funds allocated for each type; 2) name and briefly describe such activities on which USAID funds have been used; and 3) summarize accomplishments of previously approved activities. A report is expected by the end of August.

USAID has agreed to make available Rs. 84,000,000 to the Board in order to increase the effectiveness of the GOI family planning program including experimental and innovative activities in such areas as research, training, motivation, and mass communications. Rs. 30,000,000 have already been provided and additional rupees are currently being Proag'd.

2. State Finance Procedures

Despite the declared availability of unlimited financing for family planning, regular and timely release of funds at the operating level in the various states still appears to be a major bottleneck. In part this is because no state has made its family planning organization permanent. Being a temporary organization, family planning has not been invested with powers which a comparable permanent unit can exercise. For example, a District Family Planning Officer in Uttar Pradesh cannot indent his stationery from government stationery office and has to make local purchases. His powers to make purchases, namely, Rs. 20 per item per month, subject to a maximum of Rs. 1000 a year, are obviously inadequate and he has to make frequent references to State Family Planning Officer for sanction. Neither the State Family Planning Officer nor the District Family Planning Officer can incur expenditure for the treatment of complications which are directly attributable to IUD insertions or sterilization operations, but have to obtain prior approval of the State Finance Department, which, reportedly, is never available in time. This is a serious problem and has created a psychological barrier against the use of the IUD in rural areas.

Local Municipal bodies and voluntary organizations engaged in family planning work receive assistance from the Center to cover

their entire expenditure, both recurring and non-recurring. However, the required procedures are time-consuming and a deterrent to energetic expansion. The stages through which an application for assistance has to pass before a grant is received vary according to the amount requested.

Four steps are involved solely for sanction of grants up to Rs. 7,500 (\$1,000); 5 for grants up to Rs. 20,000 (\$2,666) in urgent cases; 7 for grants between Rs. 20,000 and Rs. 50,000 (\$6,666); and 11 for grants above Rs. 50,000.

After the sanction has been received, the grantee:

- 1) prepares a bill on Form TR 42;
- 2) submits it to the Accounts Officer of the FP Department (State or GOI, as the case may be) for counter signature;
- 3) submits the countersigned bill to the Accountant General (AG) for issuing authority to the treasury to make payments;
- 4) finally presents the countersigned bill and AG's authority to the treasury for payment.

The scale of grants-in-aid for municipalities, etc., are:

a) Municipalities and public sector undertakings involving population up to 10,000	Rs. 5,870
b) Municipalities and public sector undertakings involving population between 10,000 and 25,000	11,140
c) Municipalities and public sector undertakings involving population between 25,000 and 40,000	18,000
d) Municipalities and public sector undertakings involving population between 40,000 and 50,000	27,700
e) City FP Bureau for population between 0.2 and 0.5 million	30,750

- f) City FP Bureau for population between
0.5 and 0.75 million Rs. 59,710
- g) City FP Bureau for population between
0.75 and 1 million 88,580

Where the financial power has been delegated to District and State Family Planning Officers in accordance with GOI instructions, (a) class grantees go through 4 steps for receiving allocations; (b) and (c) through 5 steps; (d) and (e) 7; and (f) and (g) 11 steps. Thereafter, another 4 steps are involved for receiving payment. However, in actual practise, cases falling under (a) and (e) have to pass through 7 steps because no delegation has been made to their subordinate offices because they are not permanent organizations. Assuming that a case is held up for 2 days at each step and allowing 1 day for travel time, the cases falling under (a) and (e) would be held up for 21 working days while (f) and (g) are detained for 33 days. Actually the detention time is much longer often between 3 and 6 months, and in several known cases, as long as 12 to 18 months. ^{2/}

Non payment of salaries to family planning staff in the field is reported too frequently in the press and by observers in various states to allow the conclusion that these fiscal procedures are only normal administrative nuisances. The following is a recent example, published in the Times of India (New Delhi) on July 5, 1968:

Lucknow, July 4: About 100 employees of the Family Planning Department, including women doctors, attached to 10 family planning clinics run under the auspices of the Red Cross Society have not received their salaries for May and June.

Each of the clinics is expected to achieve the minimum monthly target of 400 loop insertions and 200 vasectomy and tubectomy operations.

2. The information in this section is from a Staff Memorandum prepared by J.N. Dutta, USAID/MA, Administrative Bottlenecks at the State, District, Block and Village Levels with recommendations for Improvement, March 22, 1968, hectographed, 14 pp. with Annexes and charts.

This is not the first time that the salaries of family planning workers have been held up. Last year they did not get their salaries for six months.

C. USAID Assessment

Accurate judgments regarding the adequacy of staff in the administrative and technical wings at the center can be made only by the GOI itself. Similarly, a valid judgment from the outside regarding the effectiveness of the regional directors set-up is hazardous, though as noted in a previous section, several persons have questioned its effectiveness and have suggested changes. The principal change recommended calls for an increase in the number of regions so as to permit more concentrated attention by each director. It is doubtful whether this change alone would result in more useful services to the state organizations unless it were accompanied by a sizeable increase in the supporting staff in each regional office. (The director of the northern region has only one state in his region, i. e. Uttar Pradesh, but the population of this one state is approaching 90 million.)

More critical from the standpoint of program success is the almost total absence of efficient administration and supervision at the district and block levels. With very few exceptions, District Family Planning Officers are medical doctors who have had little if any opportunity to learn efficient administrative techniques. Block Extension Educators, who are charged with the important job of supervision of all block level workers do not receive adequate training in procedural and supervisory matters, and in no state are the Extension Educators provided transport. Thus they are tied to block headquarters and rarely visit sub-centers and villages. The mobility of staff charged with motivation is similarly limited because no vehicles, not even bicycles, are provided them. Villages within easy walking distance may be visited often by field staff but more distant villages rarely, if ever, receive a visit.

This transport problem may, of course, be alleviated somewhat by implementation of the vehicle loan project recently sanctioned by USAID and GOI. Experimentation with bicycles and motorcycles is called for in the OWP for the Selected Areas project in Uttar Pradesh State. If proper and effective utilization is made of these vehicles by field staff in these experimental districts, field staff in other districts in U. P., and in other states will undoubtedly be similarly supplied.

Elimination of the problems at the state, district and block levels will require major changes in governmental administrative procedures and behavior which will take many years although some action can be taken in the near future which may increase the overall efficiency of state and local operations. Use of incentives -- or compensatory payments -- to program personnel should assist in this process, but perhaps the use of group incentives (not necessarily monetary) at the block, district, and even state levels, based on well-publicized performance figures for these units, would not only add impetus to the program, but create a greater atmosphere of group achievement than is presently the case and raise morale, which is in most instances appallingly low.

The Mission concurs with a recommendation recently made by the Ford Foundation for the creation of a Field Operations Division within the Department of Family Planning at the Center, i. e. in the Commissioner's office. The division would be staffed with Indian professionals representing a wide range of specializations, and functioning as a core staff they would be concerned full-time with the identification and solution of state and local problems and the exploitation of opportunities for program improvement in each state. If this proposal is adopted by the GOI, AID technicians could play a helpful role in implementation. The Mission also concurs with the Ford suggestions for demonstrating a revised grant-in-aid process.

V. MANPOWER: GENERAL CONSIDERATIONS

Manpower requirements and availabilities play a particularly vital role in any program relying primarily on an extension approach which the GOI has officially adopted in pursuing its nationally sponsored family planning program.

The following sections (a) discuss the general conceptual framework; (b) outline the staffing pattern recommended for overall health services at the Block level, and with an indication of how these positions have been filled for some of the states; and (c) summarize current family planning requirements and availabilities at the District, Block and Sub-Center levels.

A. The Conceptual Framework: Family Planning and Maternal Child Care Integrated at the Local Level

The present GOI emphasis on sterilizations and IUD's requires substantial medical, nursing and auxiliary para-medical staff. While a great deal can be and has been done to meet the initial manpower requirements by creating mobile IUD and sterilization units, operating out of district headquarters, the medical manpower needed for sterilization operations or loop insertions are only a fraction of what is needed for an effective national program within the limits of current methods. Adequate motivational and follow-up staff are equally necessary if Indian couples are to be reached and persuaded to take advantage of these services in sufficient numbers to actually reduce the nation's overall rate of population growth.

The staff being used for motivational and follow-up, functions need to have the confidence of the rural villagers whom they serve. To do this, they need to be able effectively to provide family welfare services more broadly diversified than solely urging contraception.

It is this rationale which underlies the GOI decision that, while Family Planning staff and financing will be recruited and paid for separately from those hired under the regular public

health staffing assignments, nevertheless at the Block and sub-center level at least, Maternal and Child Care and Family Planning services will be integrated. This decision was given formal and administrative effect by transferring the MCH Section of the Directorate General of Health Services, along with the Adviser on Maternity and Child Welfare, to the Department of Family Planning, effective July 1, 1967.

These two concepts -- the extension approach and the integration of MCH and Family Planning services -- within the context of a "separate" Department of Family Planning have produced a number of ambiguities and problems. Among the more obvious are the following.

- * State, and Center finance officials reportedly often refuse to honor district and block requests for reimbursements on the grounds that the Family Planning budget is being charged for salaries that are actually being paid to regular public health staff appointees.
- * Family planning workers -- public health nurses (PHN) and auxiliary-nurse midwives (ANM) especially -- find it very difficult to persuade patients to listen to them about family planning, much less adopt contraception, unless they are in a position to help families with their general health problems, and are provided with health supplies and services other than contraceptives.
- * Quite apart from the problem of motivating the villager, the professional and personal motivation, and hence recruitment, of the PHN or ANM herself is adversely affected if she is forced to serve in a situation devoid of minimum MCH services.
- * At the sub-center level, the "integration" of MCH and FP services appears to mean that all the duties involved in both MCH and family planning are integrated in one ANM serving 10,000 people.

These general considerations suggest that USAID assessments of the adequacy of family planning manpower in position ought to be made initially within the framework of the manpower planned and in position at the block and sub-center level for overall health services, not family planning alone.

B. Overall PHC/FWPC Staffing Requirements and Availabilities. ^{1/}

The emphasis of the public health and family planning programs is on providing services to the rural areas, where four-fifths of India's population lives. The organization at the Block level, an administrative unit containing 80,000 to 100,000 persons, is responsible for the main thrust of these programs.

The basic organizational unit in each Block is the primary health center (PHC) with its attached rural family welfare planning center (FWPC). In addition, the PHC-FWPC is intended to manage a number of sub-centers, one for each 10,000 persons. The PHC is responsible for both curative and preventative medicine, including the maintenance phase of epidemic disease control, basic health education, environmental sanitation and maternal and child care. The PHC is intended to be headed by an MBBS physician (Medical Bachelor and Bachelor of Surgery) and the FWPC preferably by a female MBBS physician, although a male doctor may hold the post if a female doctor is not available. Under the administrative charge of both Medical Officers are subordinate supervisory staff and numerous sub-professional health workers. The total staff presently prescribed for the PHC and FWPC, their chief responsibilities, and educational qualifications required for each post are shown below:

1. The prime source for the information in this section is the report, India's Manpower Strategy Revisited 1947-1967, Ford Foundation New Delhi, July 22, 1967, pp. VII-56 to VII-58.

STAFF REQUIRED AT THE PRIMARY HEALTH CENTER AND
RURAL FAMILY PLANNING CENTER

(1)	(2)	(3)	(4)	(5)
Professional & Sub-Professional Staff Position	Educational Qualification Required	Primary Responsibility	Prescribed Manning Table at PHC-FPC 1966 (total)	Family Planning Staff Only (incl. in Col. 4)
Medical Officer	Degree from Medical Col- lege recog- nized by Medi- Council of India	Curative & Pre- ventive medicine; health education; family planning; overall supervi- sion	2	1
Public Health Nurse	B.Sc. in Nur- sing (4 year course) or Dipl. in Gen. Nursing (3 yr. Course)	Assist medical officers; super- vise auxiliary nurse-midwives; maternal and child care	2	2
or				
Lady Health Visitor	Matriculation plus comple- tion of 2 yr. course for health visi- tors			
Senior Sanitary Inspector	8-10 years of school plus 3 years exper- ience as sani- tary inspec- tor	Assist Medical Officers; super- vise sanitary inspectors & basic health workers; envi- ronmental sani- tation; family planning	1	-
Sanitary Inspec- tor/Health Assistant	8-10 years of school plus 9 months train- ing	Supervise Basic Health workers; environmental sani- tation; family planning	6	4

cont.....

cont.

(1)	(2)	(3)	(4)	(5)
Professional & Sub-Professional Staff Position	Educational Qualification Required	Primary Responsibility	Prescribed Manning Table at PHC-FPC 1966 (total)	Family Planning Staff Only (incl. in Col. 4)
Auxiliary Nurse Midwife	8-10 years of school plus completion of 2 years course in auxiliary nurse mid- wifery	Total family health services including family planning; mater- nal and child care; Dai training and supervision	10	10
Basic Health Workers	8-10 years of school plus 4 months training	Environment sani- tation; main- tenance phase of epidemic disease control	8	-

Source:

The Ford Foundation Manpower Study cites the following as the source of information in cols. (1) to (4)

Ministry of Health and Family Planning, Report on the Basic Health Services - Introduction, October 28, 1966, Appendix I. (Report of a Committee of State Health secretaries, appointed in July 1966 to review the staffing pattern of the primary health center complex.)

Requirements listed in Col.(5) are those recommended by the Mukherjee Committee, and as listed in Annexure I of Report of the Training Division, MOHFP, Manpower and Training for Family Planning in the Fourth and Fifth Plans, May 1968, mimeographed.

It is of course true that each state is allowed considerable latitude in adapting the recommended pattern to its own needs and manpower availabilities. The few reports which are available in the Mission, combined with field observation by AID technicians, suggests that many of the states have attempted to divide up ANM staff fairly equally between the "Primary Health Center staff" and "Family Planning staff," as for example the following four states:

State	Sanctioned	In Position
<u>Rajasthan (232 PHCs)</u>		
ANM/Trained Dais (Health)	924	415
ANM/Trained Dais (FP)	1155	299
<u>Maharashtra (387 PHCs)</u>		
ANM (Health)	1595	1463
ANM/Trained Dai/untrained persons (FP)	1595	1528
<u>Gujarat (250 PHCs)</u>		
ANM/Trained Dais (Health)	992	904
ANM/Trained Dais or Trained Person(FP)	976	741
<u>Punjab (122 PHCs)</u>		
ANM (Health)	943	778
ANM (FP)	475	443

Source: Rajasthan, Maharashtra, Gujarat, information from USAID technicians report following vehicles field trip, April 1968; Punjab, report on Training Load and Tentative Plans, 1968-69 no date, prepared by Punjab State Family Planning Office.

C. Family Planning Staff Requirements and Availabilities at Local Levels

The official monthly reports from the Department of Family Planning provide fairly complete staffing details for State and District levels, but not at the Block and sub-center level. Since the largest portion of manpower requirements are listed for the Block and sub-center level, an attempt has been made to pull together, from a variety of sources, whatever data could be found in order to make a very rough initial estimate of the staff in position at these key program operating levels. These are listed in the Table on pages 69, 70 and 71.

The picture which emerges strongly suggests that Block and sub-centers reported to be "functioning for family planning" are doing so with little more than skeletal staff. An estimated 300 lady doctors are positioned in 5,480 PHC's. About 5,000 PHN's, or less than one per PHC are in place, and only 3,000 of these apparently have one ANM as an assistant at the Block level.

At the sub-center level, even skeletal staff does not appear to exist. Although nearly 20,000 rural sub-centers are reported as "functioning for family planning," only about 10,000 ANM's (who would be virtually the sole resident worker according to the approved staffing pattern) are in place. Estimates of the number of male health assistants are even more evanescent, but if as many as a quarter of those listed as required are at work, there would still be fewer than one ANM or Health Assistant for each sub-center serving about 10,000 people.

D. USAID Comments

Some of the sub-centers may be simply buildings used periodically as the site from which voluntary and other organizations dispense MCH and family planning services and this could be a plausible explanation of what otherwise seems a major gap in information -- or staff.

Certainly, a shortage of staff for rural sub-centers does not per se rule out expansion of contraceptive services. Existing male methods, particularly, are or can be independent of clinic facilities. Vasectomy services could probably be further expanded by the addition of mobile vans and extension of Family Planning Fortnight campaigns, up to the limit of willing acceptors. Satisfied users have proved to be the best canvassers, and these need not be medical workers.

Similarly, condoms can be made regularly and widely available through commercial distribution and/or local depot holders, none of whom need medical training or even public health jobs. The limiting factor will be the extent of acceptance and effective practise.

The ANM and integrated MCH-FP sub-center services are mainly critical to the success of female contraceptive practise, primarily the IUD and/or pills. Although foam tablets and contraceptive jellies will continue to be made available, experience to date with their contraceptive ineffectiveness when used in rural settings has discouraged even enthusiastic family planning workers from actively promoting their use, except as a fall back for highly motivated women unwilling or unable to retain IUD's.

Although the logistics of IUD insertion are as susceptible to mobile van and fortnight techniques as vasectomies, there is no large cadre of satisfied users for IUD canvassers, and hence the task of promotion falls much more heavily on the ANM. Although both vasectomy operations and IUD insertions need not take more than 10 to 20 minutes each, there are far more after effects from IUD's than from vasectomies. Since IUD's can be easily removed, the need for continuing contact and follow-up is essential to encourage an acceptor to continue beyond the initial stage of temporary bleeding, backache or nausea, and to enable reinsertion immediately in cases of involuntary expulsion.

Of even more importance is the fact that women in India (no less than elsewhere) appear to be most highly motivated to practise contraception after it is too late, or immediately after a

pregnancy. Continuing local level contact to take advantage of this peak motivational period is particularly needed.

It has been generally assumed that nurses and auxiliary midwives are the key individuals in this personal contact and if this is in fact the case, a more detailed examination of this critical shortage is called for. The next chapter is a preliminary attempt at such an examination.

Government of India Family Planning Manpower Requirements and
 Availabilities at District, Urban, PHC, and Sub-Center Level.
 (Not including regular Public Health Staff)

Staff Position	District		Rural PHC/FWPC		Rural Sub-Centers		Urban ^a		Total	
	R	P	R	P	R	P	R	P	R	P
Number of Bureaus/Centers	325	232	5,480	5,133	42,139	19,254	1,854	1,815	Non-comparable	
A. <u>Medical, Nursing, Paramedical</u>										
Physicians - Male	325	198	(b)	(b)	-	-	1,854	1,815	2,179	2,013
Physicians - Female	640	161	5,480	300 ^c	-	-	1,854	1,815	7,974	2,276
Operating Theatre Nurse	325	252	-	-	-	-	-	-	325	252
ANM -(Mobile IUD vans)	659	158	-	-	-	-	-	-	659	158
Public Health Nurse Supervisor	325 ^d	100	-	-	-	-	-	-	325	100
Public Health Nurse) ^e Lady Health Visitor) (1 per 40,000)	-	-	11,000 ^f	5,000 ^g	-	-	-	-	11,000	5,000
Auxiliary Nurse Midwife ^h	325	148	10,960	3,000 ⁱ	42,139	10,000 ^j	1,854	1,815	55,278	14,963
Total	2,599	1,017	27,440	8,300	42,139	10,000	5,562	5,445	77,740	24,762

R - Required for Family Planning Services (excludes other Public Health Staff)
 P - In Position

cont.....

Staff Position	District		Rural PHC/FWP		Rural Sub-centers		Urban		Total	
	R	P	R	P	R	P	R	P	R	P
<u>B. Education, Motivational</u>										
Mass Education Officer	325	78	-	-	-	-	-	-	325	78
Extension Educator - Male	325	243	2,740 ^{1/4}	NA	-	-	1,854	1,815	4,919	2,058
Extension Educator - Female	325	155	2,740 ^{1/4}	NA	-	-	1,854	1,815	4,919	1,970
Health Assistant - Male	325	183	-	-	21,000	5,000 ^{1/4}	1,854	1,815	23,179	6,998
(1 per 20,000 population-rural) Total:	1,300	659	5,480	NA	-	-	5,562	5,445	33,342	11,104

C. Administrative, Other

F.P. Administrative Officer	325	62							325	62
Statistical Investigator	325	224							325	224
Store-keeper/Clerk/Accountant			5,480	NA					5,480	NA
Record Keeper (Computer)			5,480	NA					5,480	NA
Total	650	286	10,960						11,610	286
Grand Total:	4,549	1,962	43,880	NA	63,139	15,000	11,124	10,890	128,287	36,152

Source: Unless otherwise indicated all figures are from GOI Ministry of H & FP. Monthly report Statements (I - X) showing progress of Family Planning Programs (according to information received upto June 10, 1968), mimeographed, 23 pp.

Notes: See following pages

Reference Notes to Footnotes on Manpower Chart

- a. The GOI monthly report states that 1,815 urban centers were "functioning with whole time staff for family planning work." The "positioned" are simply estimated, according to the "required" as listed in Annex I to Manpower and Training for Family Planning in the Fourth and Fifth Plans, prepared by Training Division, Department of Family Planning, MOHFP, May 1968, 23 pp. plus appendices, mimeographed.
- b. Some 4,341 out of the needed 5,480 PHCs reportedly have doctors in position, presumably paid from public health budget. It was hoped that a second doctor at the PHC could be a lady doctor. So far as one can be determined, only 600 of the PHC doctors now in position have had special family planning training.
- c. Estimated.
- d. Paid from Public Health Budget, but with responsibility for supervising public health nurses and lady health visitors at the PHC level.
- e. Although most staffing charts combine these as public health nurse/lady health visitor, their training differs greatly. The lady health visitors are gradually being phased out of the program.
- f. Requirement calculated from staffing pattern listed in Manpower and Training etc. op. cit., in footnote "a".
- g. *ibid*, p. 17.
- h. Rural PHC, sub-center and urban requirements taken from source listed in footnote "a" above.
- i. No breakdown by sex is given for the Block Extension Educator. For convenience in calculation of totals, an even division has been arbitrarily assumed.
- j. Roughly estimated at about one-fourth of requirements.

VI. MANPOWER: THE SHORTAGE OF RURAL NURSING STAFF AND SERVICES

The shortage of medical and nursing personnel is endemic to all developing countries and India is no exception. However, given the priority placed on India's Family Planning program, the shortage appears particularly acute, and the shortage of nurses looms so far above all the rest as to make a discussion of the other gaps of almost solely academic interest.

A. The General Shortage of Nurses at the Rural Level

Delivery of health services at the local level to implement the family planning program requires a look at total nursing manpower requirements. It is calculated that in order to provide one nurse for 7,000 population and one ANM for 10,000 population,^{1/} there is a need for 45,000 additional nurses and 60,000 additional auxiliary nurse midwives. At present, there is only one nurse for 11,000 population for the country as a whole, and these are disproportionately concentrated in urban areas. The critical need for nursing personnel is to meet the increased demand of hospitals, urban clinics and medical training institutions as well as to staff districts, primary health centers and sub-centers for community nursing services.

A "normal" doctor-PHN/LHV-ANM ratio could be considered to be 1 doctor: 5 nurses: 12 ANM's, a logical rationalization of manpower in order to make optimum use of the specialized training and capabilities of doctors and nurses in line with their functions and responsibilities.

In India, however, the ratio is completely reversed: For India as a whole, there are two doctors for every PHN -- in four states, there are 3 doctors to every nurse -- and about four PHN's to every ANM. The comparable doctor-PHN-ANM ratio, therefore,

1. This is the recommendation made by the Mudaliar Committee.

is 8 doctors: 4 nurses: 1 ANM.

To some extent, ^{this} imbalance adjusts itself pragmatically by the tendency of doctors and nurses to concentrate in urban private practise and hospitals. To the extent that doctors and nurses are willing to become part of the staff of public hospitals, the hospitals rely on members of the families of patients to do what otherwise would be done by ANM's or nurse aides. Untrained or semi-trained personnel are used for nursing services in rural and urban clinics, nurses are used for physician's services, physicians themselves spend much time in administrative work or otherwise are forced to do the tasks which should be delegated to nurses.

It seems probable that such a rationalization has occurred in many of the rural Block PHC/FWPC's. To the extent that a PHC/FWPC is fully staffed and the two PHN/LHV's and the 10 ANM's planned for Block and sub-center services remain at the PHC as aides to the medical officers, the doctor-PHN/LHV-ANM ratio is not out of line with a reasonable deployment of trained resources. A staff like this would be capable of providing fairly adequate health services to patients in a radius of, say, 5 or 10 miles of the clinic, but it would mean that the Block PHC-FWPC would be functioning as a sub-center itself, not as a coordinator and source of specialized medical and supervisory service to 100,000 people and ten sub-centers.

B. The Specific Shortage of ANM's at the Sub-Center Level

However, it must be remembered that this kind of concentration of doctor-PHN-ANM personnel at the PHC is not intended to be the case, in the overall manpower staffing pattern. Each ANM is expected to be resident out in a sub-center clinic, occasionally assisted part-time by a male Health assistant, and where available a young, partly trained midwife. (So far, the indigenous village dais have not been disposed to cooperate with ANM's. They are suspicious of the "government" midwives.

whom they consider to be in competition with themselves, and hostile to the ANM's efforts in both MCH and family planning.)

As noted in Chapter I, in a sub-center area with about 10,000 population, there are expected to be about 1,800 women in the age group 15-45 and at least 4,000 children.

At the bottom of a large, inverted medical manpower pyramid, at this sub-center level, the ANM is expected to be a multipurpose health worker, usually the sole health worker, responsible for the following jobs: ^{2/}

- * Vaccinate children against smallpox.
- * Give preventive inoculations against communicable diseases.
- * Keep records of communicable diseases.
- * Assist in TB program by supervising drug intake of patients on domiciliary treatment. Take sputum smears when necessary.
- * In malaria areas, take blood smears of fever cases.
- * Pursue an intensive program of health and nutrition education, with special emphasis on infant feeding.
- * Be responsible for home deliveries and associated midwifery services.
- * Maintain close working relationship with indigenous midwives and counsel them on techniques of delivery.
- * Keep vital statistics on all births and deaths, make home visits regularly to keep records up to date.

2. Information on typical ANM chores from "Country Statement on the Maternal and Child Health Services," prepared by the GOI for the WHO, and in Manpower Requirements of the Family Planning Programme, Institute of Applied Manpower Research, New Delhi, March 1968, pp. 96-98.

- * Assist in post-natal and antenatal clinics when they exist apart from the ANM's own services.
- * Act as Family Planning Motivator, provide family planning services -- both information and contraceptives -- follow up couples who practise family planning.
- * Take care of home accidents and accidental poisoning, and train families to prevent these.

The above is not a complete list of her duties. In 1966-67 UNICEF distributed over 13 million pounds of powdered milk through MCH feeding centers. Since the ANM is the person responsible for MCH at the sub-center level, it may be assumed she also assisted UNICEF in this service.

C. The Anomaly of Oversupply of Nurses and ANM's in Some States.

In the midst of the extreme scarcity of PHN's at the Block level and of ANM's at the sub-center level, the anomaly of oversupply and underutilization has appeared in a few major States.

1. Nurses

In the state of Madras, approximately 400 graduate nurse mid-wives ^{3/} are presently unemployed. In Uttar Pradesh, where a critical shortage of nurses exists, many of the approximately 350 graduate nurse mid-wives completing training in 1968 will not be employed. Two other large states are reported to have unemployed professional nurses.

All states have a need for additional graduate nurse mid-wives. As noted above, the present ratio is 1 to 11,000 population and the ratio should be at least 1 to 7,000. However, most of

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3. Graduate nurse mid-wives have about 10 years of schooling, 3 years of general nursing training and six months of midwifery.

the status with surplus nurses have not been willing to sanction additional positions and, until they do, there is no place in the public health service into which they can be drawn.

The obvious question arises as to why these nurses cannot be transferred to states which have unfilled sanctioned positions. Several factors account for this. In the first place, most states require a fairly long term obligation for nurses to serve within their own states following graduation (even if the jobs are not there to fill). In addition, there are both religious and language differences. Up to very recently the largest proportion of all nurses were from Kerala and were Christians, and these factors posed problems preventing close identity with rural communities in other states.

Another possibility for employment would be to use graduate nurse midwives to fill the Public Health Nurse positions, even though their qualifications were somewhat below those required. Here again, states have not been willing to lower their qualifications for that position, just to fill positions. As a result, nurses with advanced degrees, very much needed for teaching and administrative positions, are emigrating to Western countries for employment because positions and salaries commensurate with their educational preparations and interest are not available.

2. Auxiliary-Nurse Midwives

In the states of Kerala and Punjab, all health center positions for ANM's have been sanctioned and filled according to a 1 to 10,000 population ratio. ANM schools in these states are being terminated without any serious consideration being given to lowering the nurse-population ratio to meet local health service needs. Excess ANM's as well as excess nurses are required to remain within their own states for a specified number of years in return for the training received, and they cannot migrate to other states. For them, too, language and religious barriers are inhibitors to transfer.

Recently, GOI officials have indicated an interest in an All-India Nursing Service Scheme, which had previously been recommended by the Trained Nurses Association of India. This would provide a Nursing Corps which could be sent anywhere in India as an interim measure until local recruitment and training built up sufficiently to staff existing posts.

D. Utilization of Indigenous Dais

Every village in India has at least one of its own resident indigenous midwife - the dai - who, together with the ayurvedic practitioner ⁴/ provides the largest part of whatever maternal-child-care services exist at the village level. There is thus an untapped pool of resident mid-wives, perhaps half a million dais, who, if they could be actively enlisted in MCH and family planning services could extend the reach of government services in geometric proportions.

The GOI began a program designed to enlist indigenous dais as early as 1956, at the start of the Second Five Year Plan, offering 100 per cent financing. With few exceptions, however, the indigenous dais did not respond and instead the program was used to recruit young women for midwifery training who could assist or substitute for ANM's in short supply. During the Second Plan, 15,000 were trained and during the Third Plan 12,000 were trained. About half of these entered some form of government service and it is believed that a fairly large proportion of the 10,000 sub-center jobs reportedly filled by ANM's are in fact filled by these specially trained dais.

While this did help meet a critical shortage, it did not solve the problem of enlisting the village mid-wives themselves. One problem appears to have been the fact that training was conducted at MCH centers or other training institutions some distance from the villages and the dais could not, or would not,

4. See below, page 82.

leave their villages for the month long training. Virtually all of the village dais come from lower castes, harijans or chemars, are paid 8 annas for delivery of a girl baby, a rupee for a boy, and other than some food provided by the family during post natal attendance, have no other income, and could not afford to leave the village for that long a time.

A new program was launched in October 1967, with adjustments to enable the dai to receive training over a six months period, but to be away from her village only one day a week. The program included an additional stipend to the dai, plus referral incentives, and follow-up supervision by the ANM at sub-centers.

However, this plan too has not elicited any real degree of enthusiasm. A number of states have stated disinterest in the scheme. Other states have implemented only a minimal program. Unless a much greater response emerges than has been seen to date, it will not be possible to meet the target of training 75,000 indigenous dais during the Fourth Five Year Plan.

A fairly basic human relationship barrier may exist in the fact that responsibility for the training program as well as the post trainingsupervision is placed on the ANM, who as noted above, is considered an outsider and a competitor with the village dai for the job of deliveries. The ANM is usually younger and far less experienced in actual home deliveries than the women she is supposed to be training and supervising.

Even more basic, however, is the attitude of the rural culture toward the act of child birth itself. Although fertility is generally prized, in a large part of India a woman is considered unclean during and immediately after child birth and is isolated from her family for that reason. The indigenous dai, acting less as a nurse than as a sweeper, attends her during this time.

Where ANM's do exist, often the village dai will call on her to assist at a delivery, but largely to take care of the after birth, which even the village dai would prefer to have an ANM handle.

These social attitudes lie far deeper in village life and customs than religious or language barriers alone, and deserve careful study in the course of attempting to devise more effective ways of enlisting both ANM's and indigenous dais in India's monumental family planning tasks.

E. The Problem of Recruiting Nurses for Rural Service

It should be emphasized that the statistics as well as the generalizations suggested above are based on very incomplete information and a great deal more study needs to be devoted to each of the factors which appear to contribute to the shortage.

Nonetheless, it should not be necessary to look very much further to conclude that the shortage of ANM's at the sub-center level is not one to be solved easily by speeding up training or even by adding sub-center in-service rural training to the present curriculum.

The problem of ANM recruitment is compounded by inadequate quarters; a genuine risk to personal physical security, since she is almost alone among few other outsiders attempting to service a large community and area; inadequate supervision; inadequate MCH and FP supplies; low pay -- Rs. 80 a month starting pay, rising to Rs. 140 a month, plus Rs. 20 allowance -- and all too often salary payments are in arrears; and a suspicious village environment.

If one must add to this a deep-seated village attitude toward child birth that has the effect of placing nurses and ANM's in the same social caste as a sweeper, then the recruitment of nurses, ANM's and dais may be even more difficult than the employment records show to date.

To begin to consider in what larger MCH community nurses and ANM's might find a more secure and professionally effective role, it may be useful to look at other manpower resources at the village level which have not yet been fully tapped. This is the subject of the next chapter.

VII. MANPOWER: ADDITIONAL RESOURCES AT THE VILLAGE LEVEL.

If, as seems reasonably clear, it will continue to be difficult to recruit doctors, nurses and ANM's for resident service at the rural PHC and sub-center levels, it becomes doubly important to seek out the other resources already resident in the villages as ways of augmenting and extending Family Planning and Maternal Child Care services at the rural village level.

The GOI has for several years recognized the importance of drawing in local, urban, and rural leaders and opinion builders, as well as local organizations. In addition to the general approaches described in the regular reports, more specific evidence can be found in the reports of the persons trained under the emergency training program.

To date, some 13,000 doctors and 122,000 "other" persons have been trained for family planning work in courses of duration varying from a few days to a few weeks or months. These are in addition, it should be noted, to a total of 857,000 persons who received some kind of family planning "orientation" in some 6,700 camps. ^{1/} These numbers exceed by many thousands the 50,000 family planning workers reported to be actually in position in the formally sanctioned posts, and therefore must by definition include persons from voluntary organizations or individuals such as school teachers, private doctors or community leaders otherwise employed.

Probably many of these trained are also among the staff of the nearly 1,600 urban medical institutions which are reported to be functioning for family planning, in addition to the 1,800 urban FWP clinics financed directly under the GOI

1. Report on Progress in Family Planning Training and Education Program, as of June 10, 1968, GOI, MOHFP, Monthly Report. Statement X.

Health and Family Planning budget. Similarly, the 7500 rural medical institutions reported to be functioning for family planning at the sub-center level constitute a very important supplement to the 19,000 sub-centers reportedly opened under the auspices of the MOHFP directly. ^{2/}

There is only scattered information available so far within USAID as to just how these agencies are working, who they are, how the Central Government transfer of grants-in-aid actually are accomplished in practise, but it seems obvious that these additive resources are an important -- perhaps even the most important -- areas for further investigation and involvement.

Certainly, there are several obvious additional manpower resources resident at the village level which already are, or could be, significant not only as carriers of the family planning message but also as the means by which Maternal and Child Health services can also be supplied. It seems likely that at the present, to the extent that any combined Family Planning-MCH services are regularly being provided at the village level, it is as the sum of the health related activities of the following persons or groups:

- * Practitioners of Indigenous Systems of Medicine
- * Indigenous Dais
- * Primary and Elementary School Teachers
- * Basic village level worker (agriculture/community development)
- * Voluntary Agencies
- * Local Merchants

2. See Table II, Chapter II, page 21 above.

If a resident doctor is available in a village, it is likely to be an ayurvedic practitioner, giving advice and prescriptions and care to such local families as can afford him. As indicated above, midwifery handled by the indigenous dais, although there is little pre-natal or post natal care involved. A number of village schools have mid-day feeding programs and include some kind of elementary hygiene education in their program. The basic village level worker not only assists the farmer in production of more food but also the village in obtaining sanitary community drinking wells. Voluntary agencies, where they exist, help dispense family planning services and advice, and local merchants carry -- or could carry -- medicines and contraceptive supplies. This is not to say that in any given village these people constitute a local Family Planning Committee, or even that they provide a staff to be "supervised" by the ANM or PHN. But they do provide a pool of health and family planning manpower already in position that the village level who well deserve additional attention and logistic support.

A. Practitioners of Indigenous Systems of Medicine

A major untapped pool of manpower can be found in the some 400,000 ayurvedic practitioners (vaid) hakims and unanis. Only 162,000 of these are registered but they and the unregistered practitioners are in the contraceptive business at the village level already, generally with ineffective traditional methods, many of them prescribed in ancient religious literature. These men have the kind of rapport with their patients that is necessary to introduce and maintain contraception, and, unlike the medical doctors, they are willing to work and live in the rural villages where they are needed and are highly respected.

The GOI has undertaken to involve this group, at least to the extent of enlisting their support for the program.

In July 1967, the Ministry of Health called a two-day Seminar of the Practitioners of Indigenous Systems of Medicine, at which eminent representatives of these systems took part.

A number of the actions started on the basis of the recommendations of the seminar may turn out to have significant results. It was decided:

- * To set up a research council for this system of medicine.
- * To start field trials for those ayurvedic drugs in current use as contraceptives, whose prescriptions were found in ancient sacred literature, in order to establish their validity on statistically significant basis.
- * To start basic research on the toxicity and effectiveness of certain ayurvedic medications of less commonly accepted value.
- * To include family planning in the curriculum of the Ayurvedic Medical Colleges.

Some implementation of these suggestions is underway. A division of the Indian Council of Medical Research in cooperation with the Ayurvedic Research Committee, MOH, has undertaken to assign the investigation of certain ayurvedic drugs to established institutes of pharmacology in the nation, for example, to the Post Graduate Institute at Chandigarh under Dr. R.R. Choudhury, and the Central Drug Research Institute at Lucknow. Progress has been made in defining the contraceptive ability of at least one such drug and for that animal tests are underway.

The Ayurvedic Research Committee has selected a group of 30 drugs of traditional and scriptural significance and is to present a drug in an unidentified form together with the instructions for its use to the following research institutes, for field tests:

- * Government Ayurvedic College, Trivandrum
- * Government Ayurvedic College, Lucknow
- * Government Ayurvedic College, Ahmedabad

- * Government Ayurvedic College, Jaipur
- * Government Ayurvedic College, Patiala
- * Post Graduate Institute of Indian Medicine, Varnasi
- * R.A. Podar Ayurvedic College, Bombay
- * Shyamadas Vidyapeeth Ayurvedic College, Calcutta
- * Shri Jaya Chamrajaya Institute of Indian Medicine, Bangalore.

Some provision to provide staff for this research is to be made by the Central Government. The effectiveness of these materials can thus be proven or disproven statistically and the pharmacological nicities can be examined later.

It may be noted that in at least one of these 10 centers a request was made that they be allotted a modern oral contraceptive to be administered by the ayurvedic physicians as a control against which the ayurvedic medicines might be standardized. Approval for this use of modern oral contraceptive has not yet been given but a recommendation may be considered to offer such a standard drug to each of the ayurvedic field research centers.

If this is possible, not only will the effectiveness of the ayurvedic medications be better established but the ability of ayurvedic manpower to use modern oral contraceptives can be assessed by comparing their performance with the performance in the pilot project of the national government on oral contraception. By initiating this type of research it may be possible ultimately to provide the many thousands of indigenous practitioners with an effective contraceptive technique.

B. Indigenous Dais

Despite the fact that, as noted in the previous chapter, the indigenous dai is usually a member of one of the lowest castes in the village, she is still traditionally the person on whom the higher caste families of the village rely for child birth deliveries, and is, therefore, a very important element in the overall village health service program.

Nor should it be overlooked that the indigenous dai probably is called on to assist in many of the induced (although illegal) abortions which are believed to take place at a fairly high rate every year. Although there are no reliable figures, on the basis of a number of sample studies a GOI committee appointed to study the question has very generally estimated the annual incidence of abortion in India at around 3.9 million induced and 2.6 million natural. This would be around 8 induced abortions per thousand. ^{3/}

At the least, it is important to find some way to encourage a less negative attitude toward family planning among the dais, and more hopefully, to enlist her support in supplying or recommending safer methods than abortions. One method which has been tried elsewhere is to use the village dai as a depot holder for distribution of condoms, with both stipend for services and a commission on sales. Another method is to offer some compensation payment for loop or sterilization referrals.

C. Health and Population Education

A new and potentially far reaching development is the recent GOI decision to consider the possible introduction of family planning information and instruction relating to family planning into the training and curricula at all levels of India's education

3. Report of the Committee to Study the Question of Legalization of Abortion, GOI, MOHFP, Government of India Press, 1967 (143 pp), p. 18.

system. Over the long run, this provides an opportunity to influence the attitude and behaviour of the next generation of parents by deliberate intellectual conditioning beginning in childhood. In the shorter run, it provides an opportunity to tap a largely unenlisted manpower source -- over two million school teachers -- as influence leaders and motivators in the local communities throughout India, and to use the 1600 formal teacher training institutions as the means by which these teachers can be reached.

While development of the program will be the responsibility of the Ministry of Health, the Ministry of Education has agreed to cooperate through the Agency of the National Council for Science Education.

1. Background

The need to provide children in India with basic knowledge about reproduction, sexuality, personal hygiene, population dynamics and the sociology of the family is generally acknowledged by educational leaders. However, there is a long tradition to avoid in school curricula reference to topics that relate to population education.

As recently as January 1968, because of the delicacy of the topic, the Ministry of Education turned down a proposal submitted by GOI biologists in the Department of Science Education of NCERT, (National Council of Educational Research and Training) to develop textual materials on reproduction and population that would supplement a new school biology curriculum.

Within the Ministry of Health, the School Division of the CHEB (Central Health Education Bureau) has responsibility to develop model curricula in health, inclusive of sex and family life education, at all levels of the education system. Curricula are submitted to State Departments of Education for adoption and/or adaptation. The CHEB further has responsibility for the train-

ing of health educators. Since 1961, the CHEB has prepared four syllabi, one for each of the main educational levels. CHEB has also prepared a Teachers Sourcebook and has carried out a limited amount of in-service education. However, financial stringency has prevented the limited staff of CHEB from preparing the necessary curricular materials that would embody the syllabi.

When the Ministry of Education turned down the initial proposal, interested GOI officials in NCERT suggested that Mrs. K. Bhatia, Deputy Assistant Director General of the School Division, CHEB, be approached about her interest in incorporating population education projects in the health education school programs of CHEB, and she undertook to develop a proposal, in consultation with USAID Education Division technicians.

2. Proposed Activities

The proposed plan envisions three main activities:

- * The development of suitable guides, references, text materials and visual aids in health education for teachers and students.
- * The organization of summer institutes in health education, primarily for faculties of basic training schools and teacher training colleges.
- * The establishment of extension health education offices within each district in India.

The proposal requests foreign assistance over the period 1969-1974 as follows:

- * Four two-year technicians (8 man years). Two for 1969-71, and two for 1971-1973. Each pair would include one technician for development of materials and one technician for coordinating and developing the training programs.

- * Ten three-month consultants (30 man-months) to work with the staffs of approximately 90 summer institutes over the five year period (2 consultants per year). Consultants would be specialists in such health education areas as nutrition, hygiene, safety and sex education.
- * Sixty participant trainees in health education over the five year period.
- * \$100,000 in commodities.

3. Progress to Date

Between April and July 1968 the proposal underwent numerous revisions and budget cuts, but as of August 13, 1968, it had survived all GOI reviews to date. In its present form the scheme is titled "A Proposal for Population Education in the Educational System of India during the Fourth Five Year Plan," and will include other ingredient topics of health education. The original budget of Rs. 28 million has reportedly been reduced to approximately Rs. 15 million at the expense of District "population education officers." Curricular materials development and summer institutes programs have survived reductions imposed by project review committees within the Ministry of Health.

As of August 13, 1968, review committees within the Ministry of Health have approved the proposal, and the National Council for Science Education within the Ministry of Education has agreed to affiliate with the CHEB, provide administrative assistance for the conduct of summer institutes, and expertise in the materials developmental work. At the present time, the Planning Commission is fixing priorities on all Ministry of Health Five Year Plan projects.

If and when this project wins final approval, USAID will likely be requested to provide aid as outlined above.

D. The Village Level Worker - Gram Sevak

Another source of already employed manpower resident in or near the village level may be found in the multipurpose village level worker -- the gram sevak -- on the payroll of the Ministry of Food, Agriculture, Community Development and Cooperation.

Like the auxiliary-nurse-midwife, each of these has multipurpose responsibilities at the subcenter and village level. However, although there are only 10,000 ANMs in position, there are some 80,000 gram sevaks already employed and in place to service the 5,460 blocks. They are male, have more professional prestige than a nurse-midwife, have an immediate and favorable contact with resident farmers, and no responsibility for the health of the farmer's wife and children. While it is true that the gram sevaks have multiple responsibilities, these responsibilities are primarily agricultural and, somewhere up the organizational line, can be passed on to an expert with the answers or a set of forms.

The Department of Family Planning has for several years sought to enlist this cadre of workers, but there does not yet appear to be any large-scale effective involvement so far. It would be useful to explore further the programs tried and consider additional means of drawing them in for motivational work.

Originally, a women's corps of workers was also contemplated -- the gram sevikas -- to provide extension services, mainly in the field of home economics. As of 1966, when 75,000 gram sevaks had been trained, only 8,400 gram sevikas had been trained and few of these continued in service. 4/

4. India 1966, published by Ministry of Information and Broadcasting, GOI Press (Faridabad) October 1966, p. 187.

Many of these young women came from fairly high caste families, responding to the appeal for young people to involve themselves in community service. However, the environment in which they had to work and the multiple duties that devolved on them have served to cut off recruitment for these social service posts as sharply as for the ANM's. Rural India does not yet appear to be ready to accept young female social workers, unless they have a well staffed institutional base from which to operate and to which they can return.

E. Voluntary Agencies

There are some 1600 "medical institutions" in family planning in addition to the urban family planning clinics and about 7400 institutions in rural areas doing similar work. (See Table II on page 21 above.)

While we do not have a complete breakdown of where all these institutions are, we do know that the head offices of at least 300 branches have received financial assistance from the GOI and the State governments for their family planning services. In 1966-67, sixteen agencies, including the Red Cross (which has about 50 chapters across the country) and the Family Planning Association of India, received grants-in-aid from the GOI in excess of Rs. 50,000 each. During the period April 1967 to January 31, 1968, a total of Rs. 3,997,800 was released by the State Governments and Rs. 15,020,500 by the Center. The primary recipients were:

Family Planning Association of India	Rs. 96,981
Indian Red Cross Society	55,461
Indian Medical Association	32,412
State Social Welfare Advisory Board	29,898

Among the numerous voluntary agencies doing family planning work in the rural areas are the various women's welfare

organizations, such as the Mahila Samaj and the social welfare organizations, such as the various Seva Mandals and Samitis. In some states, panchayat groups are also active in family planning work.

In the urban areas, apart from the Red Cross and the Family Planning Association of India, there are clinics organized by the Indian Women's Aid Society, the All-India women's Conference and by the secretaries of many private hospitals.

Quite apart from the services they are now supplying, these organizations can play a particularly important role in rural communities because where they have active chapters their sponsors and participating members are usually drawn from the more influential and forward looking members of the community.

F. Local Merchants

There are at least 600,000 outlets for many of the commercial suppliers of consumer goods at the local level. The condom commercial distribution ^{5/} scheme is the first major use of these channels for family planning supplies and information. Whenever any other easily used, inexpensive and acceptable non clinical contraceptive is approved, the same widespread distribution network will be in place quickly to spread its availability at the local level.

G. USAID Comment and Contribution

USAID's concern with the critical importance of reaching the local level is reflected in several significant program contributions: Provision of vehicles to increase the radius and

5. See Appendix A.

effectiveness of health manpower already in position; assistance in the indigenous dai training program; and encouragement of the use of select midwife personnel for IUD insertions.

1. Vehicles

During 1968, USAID and the GOI Ministry of Health and Family Planning developed a program to expand the family planning vehicle fleet by 6,193 vehicles and to assist the States and the Center in developing adequate maintenance systems for family planning vehicles. Under a loan agreement signed June 29, 1968, AID is providing \$2.7 million as a non-project loan, an amount equivalent to the dollar costs of imports required for the manufacture of these vehicles in India. It also plans to grant the GOI local currency, representing 85 to 100 per cent of the capital costs for procuring the vehicles (Rs. 142 million), to complete adequate State maintenance systems (Rs. 5,415,000) and recurring expenditures for effectively operating and maintaining these vehicles for three years (Rs. 84,000,000).

To ensure effective utilization and maintenance of the 6,193 vehicles which AID proposes to finance, the Mission and the GOI have agreed to certain staff and maintenance conditions and qualifying procedures and controls.

The staff conditions relate to individual vehicles, and require the potential recipient units to have the following staff in place:

<u>Unit</u>	<u>Vehicle</u>	<u>Staff</u>
District Bureau	1st Supervisory	District Family Planning Officer
	2nd "	District Extension Educator or Public Health Nurse Doctor Nurse Operation Assistant Attendants (2)
Block Center	General Purpose	Block Extension Educator or Lady Health Visitor
City Bureau	Supervisory	Doctor Extension Educator
City Bureau	Supervisory	Doctor (2) Extension Educators (2)

Unlike the staff conditions which apply to specific vehicles at specific levels, the maintenance conditions apply to a State as a whole, precluding delivery of any vehicle until the State has satisfied the maintenance conditions. The GOI also plans to establish a Central Health Transport Organization (CHTO) for two major purposes: 1) maintain vehicles assigned to Delhi, and 2) train vehicle maintenance and operating personnel of the States. It has been agreed that no vehicles will be delivered until the training part of the CHTO is ready to function. As a result, the maintenance conditions may retard the delivery schedule of vehicles, at least initially, but are essential to ensure that the project helps to reduce rather than compound the serious health vehicle maintenance problem which already exists. Only 6 States presently have satisfactory maintenance arrangements -- Andhra Pradesh, Bihar, Gujarat, Kerala, Maharashtra and Punjab.

To accommodate the States, some of which cannot be expected to qualify for vehicles for some time, and the manufacturers, which must plan inventories and produce in economic lots, the Mission and the GOI have established related procedures and controls. The terminal date for disbursement in the Loan/Grant agreements pertaining to vehicles will expire on December 31, 1971, giving the States about 40 months to qualify for vehicles. During this period, a State will be eligible for vehicles when the Secretary to the State Ministry of Health certifies that the State has satisfied the maintenance conditions and qualifies for a certain number of vehicles according to the staff conditions. Such certificates will be submitted to the GOI which will submit them to the Mission. Based on this procedure, and on prevailing staff and maintenance situations in the States, the Mission and the GOI estimate that vehicles will be delivered,

and financial resources disbursed, according to the following schedule:

	<u>12.31.68</u>	<u>6.30.69</u>	<u>12.31.69</u>	<u>6.30.70</u>	<u>12.31.70</u>	<u>6.30.71</u>	<u>Total</u>
General Purpose	524	1,048	907	939	802	463	4,683
Supervisory	273	271	331	177	104	16	1,172
Medical	54	27	45	18	9	-	153
Audio-visual	35	15	25	5	5	-	85
Post-partum	17	13	31	14	17	8	100
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	903	1,374	1,339	1,153	937	487	6,193

Note: A large amount of additional background information and project implementation detail is available in the loan paper, issued by AID/W as Capital Assistance Paper, Proposal and Recommendations for the Review of the Development Loan Committee: INDIA - FAMILY PLANNING VEHICLES (AID-DLC/P-743) 33 pages, twelve annexures and four appendices.

2. Dai Training

At the request of the GOI, USAID has agreed to provide, with funds obligated in FY 1968, midwives training kits for each PHC conducting dai training courses, which has not received a UNICEF midwife's kit and which has a public health nurse, health visitor or auxiliary nurse midwife trained and available to conduct the training course. The estimated number of kits required was 3,000.

However, as noted above, few states have taken up the offer of the GOI to finance such training. In July 1968, USAID decided to order only 1,500 kits, and delay order of the remainder for six months, depending on progress of the program.

The USAID technician has suggested two alternative training programs, as possible ways to increase the number of trainees: (1) Establish a Central Government Task Force of graduate nurse midwives, similar to the physician task force, using nurses in states such as Kerala or Punjab who are unemployed because there are no sanctioned positions; (2) extend the dai training program of the Indian Red Cross through the GOI voluntary agency grant mechanism.

3. Use of Select Nursing Personnel

The use of personnel other than doctors for the IUD's program is of very recent origin in India. As noted above in Chapter II, it seems likely that a good deal of the success in the Punjab is due to the expanded coverage which was possible by using select nursing personnel in addition to doctors for insertions.

USAID technicians have encouraged this development in several ways as outlined below:

a. Background

The loop program began in India 1965 and in that same year (when Col. Bhatia, the present Commissioner of Family

Planning, was the Director of Health Services in the Punjab) an ad hoc effort was made to train Lady Health Visitors and Auxiliary Nurse Midwives in loop insertions. This was initiated in some clinics as a matter of necessity; subsequently an ad hoc formal three-week training program was developed at the Family Planning Training Center in Chandigarh; it has been replaced on a less intensive basis by apprenticeship methods.

The simultaneous development of a method to use paramedical personnel for IUDs in Pakistan was well known in India. At the Planned Parenthood meeting in Santiago in April 1967, reports of nurse-midwives inserting loops were made.

At the January 1968 meeting of the Secretaries and Directors of Health Services and Family Planning Officers of each State as well as of the Central Ministry, a position paper was presented by the Department recommending the use of select nursing personnel for loop insertion. As a result, the Council members recommended that States be urged to begin training of select nursing personnel for loop insertion.

b. USAID Financed Research and Training Activities

On the request of an interested Fulbright scholar, USAID funded two loop follow up studies in Haryana, at Karnal and Rohtak. Although these were intended primarily to establish the demographic impact of loops based on continuation rates in patients of given fertility, the study also identified continuation rates based on the training of the inserter. These studies at Karnal and Rohtak demonstrated that paramedical personnel had continuation rates lower than those of the physicians (.55 paramedical and .73 medical at 12 months). These studies helped to re-focus the interest of the Department of Family Planning on the use of nursing personnel in this technique.

At the meeting of the Technical Advisory Committee for IUD's to the Ministry of Family Planning in February 1968 (to which representatives of AID were invited) the majority of the gynecologists were against the training of paramedicals to insert loops. Despite this recommendation, the Ministry at the subsequent Family Planning Council Meeting at Naini Tal in April 1968 declared its intent to promote the utilization of paramedical personnel for loop insertions. USAID technicians were asked to assist in designing "Guidelines for Training of Select Nursing Personnel" and in the writing of a "Procedural Manual for Performing Loop Insertions by Select Nursing Personnel." The draft of this manual has been approved by the Ministry and will be issued from the Commissioner's office. One state has already asked for 400 copies. A method of rapidly printing this after field trials will be desirable.

The Government of Punjab has requested Peace Corps to provide nurses trained in loop insertions to forward their paramedical program. Approximately 18 nurses will be provided in October 1968 and they will be trained with the guidelines and procedural manual described.

VIII. TRAINING

It should be pointed out at the outset that "Training" in this chapter does not mean the professional training of all the 125,000 presently projected direct-hire Family Planning workers -- or the 136,000 direct hire workers envisioned as needed by the end of the Fourth Five Year Plan.

Rather, "Training" means the effective indoctrination of these workers -- as well as the many other groups to be enlisted -- in the vital importance of family planning to India's development effort and each individual family's development progress plus specific training for their particular role in furthering the program.

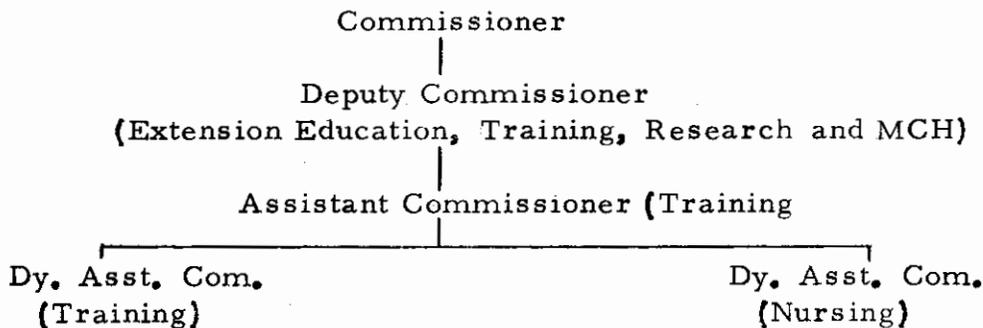
As noted above, the GOI has engaged in an intensive crash training and orientation program that has succeeded in contacting many ancillary individuals in addition to full time family planning workers. However, it was recognized that this was only an interim measure and more professional guidance and direction was needed in order to make the training effort produce optimum use of all the manpower involved.

As of February 1, 1968 a new team of professionals was in place in the Department's Training and Research Division, many of whom have had basic training and experience both in training administration, and more significantly, in training processes all the way from the grass-roots level to that of higher institutions in public health, health education, and family planning. The principal mandate given the newly organized division was coordination of all training activity in the country. Bold moves have been made in that direction.

The new team, from the beginning, was under no illusion that training alone held the answers to a dynamically successful family planning program. Early in its planning, the Division said that effective program implementation also depended upon other factors : Better recruitment and selection of personnel; clear and reasonable job descriptions; effective supervision; fair and adequate salaries; an objective system of appraising job performance; and efficient, humane clinical and follow-up services.

A. Training Division : Organization and Responsibilities

The Training Division is responsible to the Commissioner of Family Planning who reports to the Joint Secretary. It functions under the guidance of Deputy Commissioner Dr. V. Ramakrishna, of international repute who built the Central Health Education Bureau in India; Assistant Commissioner Dr. B. S. Sehgal, former Director of the Planning Research and Action Institute (Uttar Pradesh), who generated much valuable data influencing the activities of family planning workers at the district and block levels; Deputy Assistant Commissioner (Training) Dr. Sarah Rao, who headed the Family Planning Training and Research Center, Bombay, and subsequently trained a number of trainers in the Central Family Planning Institute; and Deputy Assistant Commissioner (Nursing) Miss H. Chabook with extensive academic and field experience. The lines of administrative responsibility are shown in the following diagram:



Two AID consultants, Miss Emma Carr Bivins and Dr. G. B. Krishnamurty, and one Ford Foundation consultant, Dr. Donald Rice, are presently acting as fulltime technical advisors. Miss Germaine Krysan, Nursing Advisor, serves as a part-time advisor. In addition, a competent backup staff, including statistician Mr. S. K. Ganguly, sociologists Mr. S. Misra and Mr. R. W. Saxena, and Liaison Officer Mr. D. P. Jain, provide supporting services.

The assigned responsibilities of the Training Division include the following :

- * Assess manpower roles and training needs for medical and paramedical personnel, community development personnel, community development workers, teachers, and other welfare and development workers.
- * Provide facilities to fulfill training needs, including the establishment of Family Planning Training Centers in the States.
- * Coordinate the total training effort by (a) delineating geographical and category-wise responsibilities; (b) arranging for supervisory responsibility at all levels; (c) jointly developing specific guidelines for training with the family planning officers of the States and training institutions; and (d) periodically reviewing the work of the Central Institutes and State Training Centers.
- * Plan the inclusion of family planning components in the basic training of all family planning workers.
- * Arrange for design, testing, production, and evaluation of training aids.
- * Implement the resolutions of the Central Family Planning Council related to training.
- * Provide data on request to touring officers and other supervisors and co-workers in the family planning effort.

There are indications that the Fourth Five Year Plan will envisage an expansion of the Training Division to include five specialized units; each of which may eventually be headed by an Assistant Commissioner :

- * A planning and evaluation unit
- * A publications and audiovisual unit
- * A technical service unit
- * A coordination unit for Central Institute and Central Family Planning Field Unit activities
- * A unit for introduction of family planning into basic training

B. Training Facilities

The structure needed for the training of family planning workers is in existence. The proper utilization of the training facilities already available has become a focus of concern for the Training Division. Following are the resources available :

1. Institutional Resources

- * Institutions established exclusively for the Family Planning Program. Examples :
 - a. Regional Family Planning Training Centers (46)
 - b. Central Institutions (5)
 - c. Central Family Planning Field Units (16)
- * Medical Colleges (92)
- * LHV/PHN Training Centers (20)
- * ANM Training Centers (307)
- * District Hospitals (334)
- * District Family Planning Bureaux (334)
- * Training classes managed by non-governmental organizations, such as Red Cross, Indian Medical Association, Chambers of Commerce, and various industrial groups.

2. Non-Institutional Resources

- * Self-instructional courses (most are yet to be developed):
 - a. Programmed Books
 - b. Programmed audio-visual material
 - c. Programmed group discussion material
 - d. Other enrichment material
- * Orientation by individuals or teams sent by the principal training institutions to instruct such groups as Primary Health Center personnel.

The ultimate criterion for institutional effectiveness, it is well understood, is for the trainees to perform effectively on the job -- in terms of accomplishing the targets which must be met.

The Training Division is encouraging these institutions to review critically and improve their practices as regards the following : course schedules, seats filled; staffing, development of field training demonstration areas for every RFPTC; revision of syllabi toward more practical approaches; use of effective teaching methods; plans for inservice training; research, demonstrated capability for innovation, flexibility, and evaluation; and systematic follow up of trainees on the job.

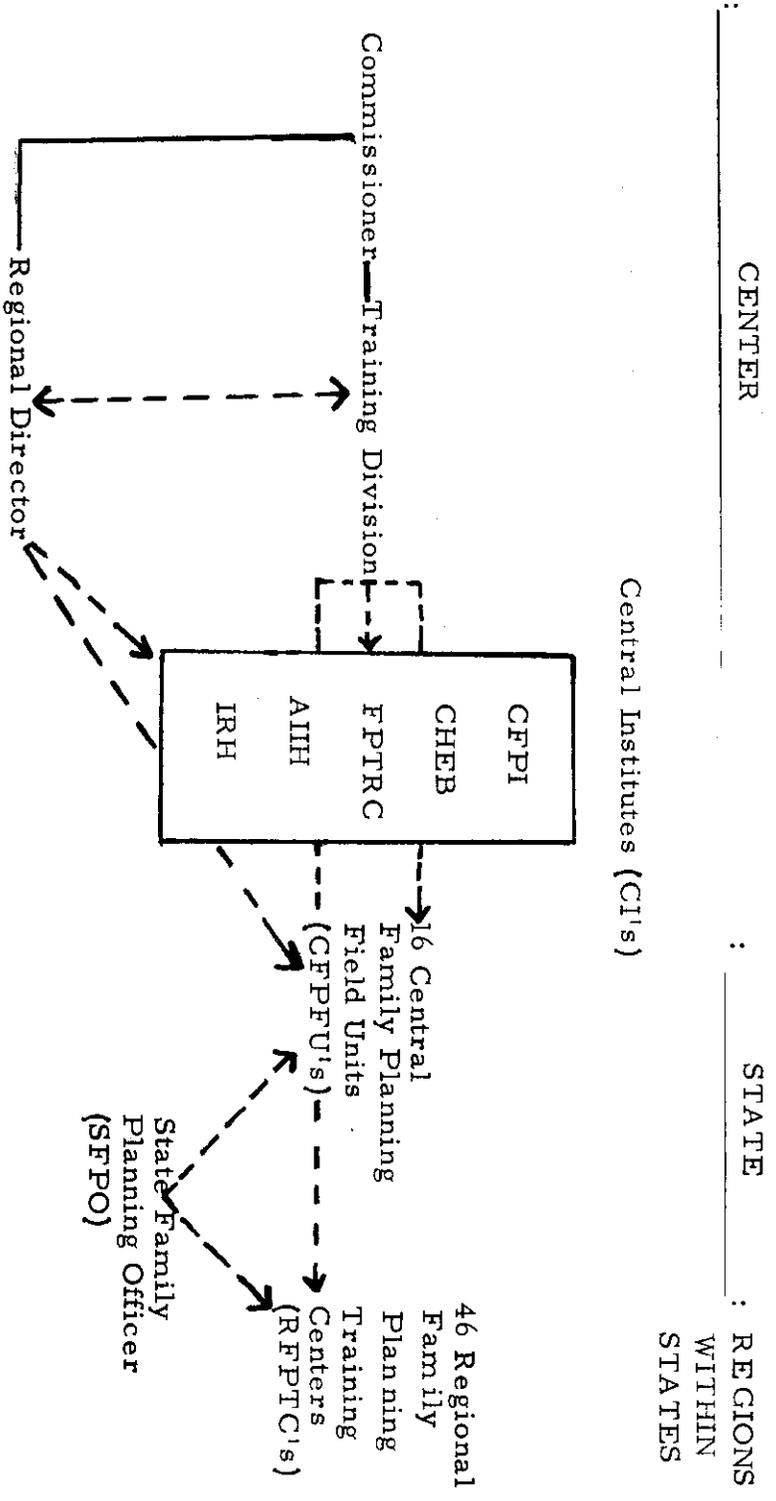
C. Lines of Coordination

The Training Division, directly or indirectly, now coordinates all family planning activity in the country. This was not always so. For example, the Central Training Institutes (CI's) have been functioning as semi-autonomous institutions;

- * Central Family Planning Institute, New Delhi (CFPI)
- * Central Health Education Bureau, New Delhi (CHEB)
- * Family Planning Training & Research Center,
Bombay (FPTRC)
- * All India Institute of Hygiene and Public Health,
Calcutta (AIIH)
- * Institute of Rural Health and Family Planning,
Gandhigram (IRH).

As a result of a meeting of CI Directors and key staff members -- held in New Delhi June 24 - 26, 1968, and sponsored by the Training Division -- the decision was made to integrate these institutions more emphatically into the national training program and to broaden their responsibilities. In effect, under the leadership of the Training Division, training is being decentralized to bring it closer to the action in the field. The diagram on the following page describes the new relationship of the Training Division to the various training institutions.

SCHEMATIC DIAGRAM OF RELATIONSHIPS OF TOTAL FAMILY
PLANNING TRAINING EFFORT IN INDIA.



Prepared by:
USAID Health & Family
Planning Division
June 1968

The CI meeting called for division of the entire country into five regions, with each of the five CI's assuming regional responsibility to supervise and upgrade the total training effort in its respective area. Representatives of the CI's will now accompany Training Division consultants on their periodic visits to the various training institutions in each area to provide requested guidance and support. Formerly, some of the CI's trained special categories of workers from all over India. As a result of the CI meeting, each CI will broaden its scope to include many categories of workers within its region. They will now offer short term and long term (where indicated and feasible) training courses for State Family Planning Bureau personnel and key Regional Family Planning Training Center (RFPTC) and district personnel.

The Regional Director assists all regional activity when it concerns policy and negotiations requiring delicate handling. Directly responsible to the Commissioner of Family Planning, he functions independently of the Training Division, but interacts with it, nevertheless. He also provides guidance to the Central Institutes, Central Family Planning Field Units (CFPFU's), and State Family Planning Officers.

Operating within the States are 16 mobile CFPFU's and 46 static RFPTC's. The role of the CFPFU is also changing. The CFPFU was formed to supplement the training and research of static CI's and RFPTC's by working with rural areas too remote for other training institutions. The CFPFU could not always fulfill its responsibilities properly. Chief among the reasons for its shortcomings is its ill-defined relationships with the States and other training institutions. This problem and others are now being jointly investigated by the Training Division and interested parties.

Generally, however, each CFPFU trains those categories of workers determined by the State in which it operates according to the State's priority needs and other training resources. It also conducts special studies. It usually functions under the guidance of the State Family Planning Officer and the Central Institute in whose region it operates. Some are under the Regional Director.

Each State is divided into a number of regions according to its size and population. A Regional Family Planning Training Center (RFPTC) operates within each region under the specific guidance of the State Family Planning Officer, and the general guidance of the Training Division and the Central Institute to which it is assigned. Each RFPTC supervises training within assigned districts and conducts courses for block level staff.

D. Training Load

Approximately 132,600 full-time family planning and health workers are expected to need training during the Fourth Plan. These are listed in the table on the following page.

The Training Division's current mission is to press for the training of all key family planning workers (medical, para-medical, motivational, administrative now in position, about 50,000) before the end of the GOI fiscal year, March 31, 1969. First on the list are the "trainers of trainers", then supervisory personnel, remaining full-time family planning workers, other health workers, etc. The rationale behind the arrangement is that well-trained higher level staff can impart necessary knowledge and skills to workers they direct.

The Training Division is concerned with the quality of training which workers receive, as well as the quantity of workers reached within the year. Courses are being shortened to stress essential priority topics and eliminate topics which can be handled later in further training efforts. Content is being examined to see if it stresses the practical working situation with which the worker will be faced. All courses will include field experience, and teachers will be advised to return periodically to the field themselves to relate theory to reality. Since the accent is on action, even teaching methods are slowly changing shape with encouragement to vary pure lecture with discussion, role playing and self-instructional techniques. Periodic in-service education, seminars, programmed learning, and library facilities will eventually supplement the initial thrust.

GOI FAMILY PLANNING TRAINING LOAD
DURING FOURTH PLAN (1967-71)

<u>Category</u>	<u>Number</u>
1. Doctors	10,519
2. Extension Educators: District, Urban and Block Educators	9,552
3. (a) <u>For administration & supervision:</u>	
Public Health Nursing Supervisors	360 (1 at every district)
(b) <u>For teaching:</u>	
Public Health Nurses	360 (1 at every district)
Sister Tutors I	842) Attached to
Ward Sisters I	3,159) training schools
(c) <u>For service personnel:</u>	
Health visitors/Nurse Midwives	10,280 (Primary Health Centres)
Nurse Midwives (Staff Nurses)	20,000 (Working in (approx) institution)
Auxiliary Nurse Midwives (1 at every subcentre)	22,707 (Under F. P.) 18,000 (Under Health Services)
4. Health Assistants	22,707
5. Others	14,174
Total:	132,660

Although priority is being given to full-time family planning workers, other health and community development staff will not be ignored. While government medical and paramedical workers can reach many people, private medical practitioners reach another large sector of the population. Some attempt has already been made to include these doctors in family planning training through the India Medical Association. Current plans call on the Training Division to take more initiative in an intensified effort to train private practitioners in the future.

Homeopaths, ayurvedics, and other indigenous practitioners of the Indian system of medicine constitute another untapped source of family planning potential. Training of these workers, minimal at present, will be expanded in the future.

Finally, the Training Division hopes to stimulate more quality orientation for key influencers in voluntary agencies and other major organizations, industrial firms, and district and block establishments.

E. Progress Report

1. Step-by-Step Developments in Training Division Action in Recent Months.

In the late fall of 1967, with the Deputy Commissioner in position and a skeleton staff working with him, proformae were issued to States and RFPTC's in an attempt to gain an approximate picture, at least, of the training load. Since February 1, 1968, with an Assistant Deputy Commissioner, Deputy Assistant Commissioners, and technical consultants (AID and Ford Foundation) in position, the following activities and program changes had taken place in the ensuing six months:

- * Staff deliberations have been had and decisions made on future policy and procedure.
- * Base-line data on training loads and training potentials in several States is in hand and being developed for the rest.
- * The staff has made visits to discuss training load data, assist in development of realistic RFPTC training schedules, and initiate discussions on improving curriculae and syllabi.

- * The Training Division planned for and prepared major background documents on training, including the Training Agenda for the meeting of the Central Family Planning Training Council, April, 1968; Training Requirements in the Revised Fourth and Fifth Five-Year Plans; The Role and Potential of Central Training Institutes; and The Role and Potential Role of Central Family Planning Field Units.
- * The staff planned for and participated in the meeting of CI Directors, June 24-26, 1968, and is now planning for later meeting of select committee on future role of CFPFU's.
- * The Training Review, a bi-monthly publication for CI's, State Bureaux, and RFPTC's, has been developed by a USAID consultant, and the first issue is in press.
- * The programmed instruction book, "Guide to a Happy Family" (prepared by a USAID consultant) has been translated into Hindi for general distribution to all training institutions.
- * Continuing visits to States are being made with plans to include Central Institute representatives in future visits.
- * Prototype how-to-do-it training manuals embracing all categories of family planning workers are being developed.
- * Programs to train RFPTC personnel in proper maintenance and use of new audio-visual training commodities (from USAID) and library equipment are being readied well in advance of the arrival of the equipment.

F. USAID Comment

1. Importance of a Flexible Approach

Perhaps the prime characteristic of the Training Division's strategy is that it remain flexible, to be adjusted in the light of needs and realities. Plans and actions during this

period of new foundation-laying are not set, but are evolving as individuals and the entire "Training Team" meet and work with family planning workers at all levels. The plans being made thus reflect not only the best judgments of the Training Division staff, but also the thinking of those persons at CI, Regional, State, and RFPTC levels who must carry out the plans. The Training Division has demonstrated that it is not interested in control, but in sharing responsibilities for decision-making, and in guiding, encouraging, and helping all the training facilities in the program.

An example of this method of working is what happened at the meeting of CI Directors in June. Many persons had recognized for some time that the CI's needed change and improvement. A committee of the Training Division staff had researched the background, development, functions, current activities, etc. of the CI's, and after an informal survey of opinion among CI personnel, had suggested a list of alternative roles for the future. At the CI meeting the Institutes faced all the facts and formulated their own recommendations as to what they should become. By charting their own destinies, which will include much more responsibility for upgrading training activity in the States, they elected, in a sense, to become strong arms of the Training Division and to work for integrated effort rather than as independent entities. The decisions arrived at by the CI Directors themselves were eminently satisfactory. What might have been a battle of strong personalities became a serious and logical planning session which should contribute significantly to the family planning program.

Thus, although general outlines of what must be done throughout the entire training structure to fortify workers for more productive basic service at district, block and village levels are known to the Training Division, the exact ways of making changes and improvements will be developed by the Division in concert with all the workers who have a vested interest in what happens in training.

2. Place of Research in Training Plans

The unprecedented volume of training for jobs which need better definition is a challenge. Concurrent training-related research activity, to locate problems and to devise ways of handling them, is indicated.

An inventory of all the training-related research up to the present is likely to be prepared soon by the Training Division. The Training Division will also be encouraging CI's to undertake short-term studies having immediate application in the program. (Some notable training research has already been done in institutions in India such as PRAI, Lucknow, and in IRH, Gandhigram.) The recent CI meeting revealed several potential areas for research:

- (a) the preplanning stage of training - course development;
- (b) the training stage - methods of instruction and their proper coordination;
- (c) the follow-up phase of training;
- (d) the evaluation of training.

Details of specific projects will be centrally developed with the help of a specially convened expert group. Responsibilities will be assigned to the CI's and, through them, to other institutes. Provisions are being made for working out the implications which research findings have for changing or improving training activity.

3. The Role of the New Team

The GOI Training Division in formative years of the family planning program apparently enjoyed no place of prestige within the Ministry of Health and Family Planning. Even now its approaches are criticized by some who are devotees of pure mass communications and/or monetary incentives. The Division's current approaches are, beyond doubt, inclusive of the "Health Education" or "Extension" concepts: "Start where people are," "involve those who are planned for in the planning;" "help people to learn by doing." They do not exclude recognition of the place and value of mass communications. However, as the USAID consultants view the march and pace of events, the Division is proceeding in pragmatic fashion. The Division does not, for instance, advocate abandoning set statistical targets for States, districts and blocks, as some are inclined. Human nature being what it is, the Division leaders reason, there must be specific goals.

4. Training Implications for AID

As of mid-July 1968, the GOI Training Division is making plans for use of the six short-term consultants authorized under the OWP of the AID training consultants, in expanding operations of the Division.

The Division appears to value and rely upon both Ford and AID consultant help as well as for participant training in the United States. Consequently, as the plans of the new Division become somewhat more congealed within the next six to eight months, it is conceivable that a number of additional full-time, technical opportunities and requests for assistance will emerge, such as: School health and family life consultants; technical editorial consultant; programmed instruction experts; statistical consultant; audio-visual consultant (training). Requests for such help from AID will, of course, depend upon the general "climate" in the GOI for United States assistance.

IX. MOTIVATION: GENERAL CONSIDERATIONS

It is an obvious fact that success in India's effort to reduce the birth rate depends on whether enough couples will want to limit their families to only two or three children, will be persuaded they can, and thereafter will successfully adopt some method of contraception. While the literature on motivational research contains large and significant gaps, especially when it comes to identifying the relative value of alternative arguments and techniques for persuading couples to come forward, enough attitudinal and acceptance research has been done to see the problem in realistic perspective.

The first and most important conclusion emerging from attitude and acceptance studies is that the most significant influence on attitude toward family size is the desire for at least two living sons. These and other socio-psychological studies have also identified several stages in shifts of attitude toward new practises which individuals or groups go through before adopting new practises.

These two general considerations are discussed in the following two sections, and are intended to provide the main conceptual framework within which GOI and USAID program activities, which can influence motivation and action are considered in more detail; Mass Communications (Chapter X) and Incentives (Chapter XI).

A. Demographic Limits on Contraceptive Acceptance Levels

There are several factors that limit motivation for family planning. Primary among these is the attitude toward family size itself. Studies indicate that the mean number of living children desired ranges from 3 to 4.5, with urban couples wanting fewer children than rural couples. A number of socio-

economic factors enter into this determination. Of great significance is the wide-spread (almost universal) preference for sons. A study in rural Uttar Pradesh showed that 70 per cent of the respondents wanted 2 to 4 sons while 68 per cent of them wanted only one daughter or none. From all indications this is typical of the preferences of the Indian people. In the process of attempting to have at least two sons most couples have more than the desired number of daughters, and hence more children than they desire.

It must also be remembered that it is living children they want, and with the prevailing high infant/child mortality rates, ¹/ quite a few more children must be born in order to ensure the survival of the desired number. Thus in order to have the two living sons desired a couple may have to have four or more sons (and a number of daughters as well). Perhaps this accounts for the consistent gap between the number of couples who agree with the concept of a small family and the number who practise contraception. This is where follow-up studies of acceptors can provide valuable intelligence clues for program building. One might also add that actions speak louder than attitude surveys.

As mentioned in an earlier chapter on demographic facts, lowering of India's high birth rate through family planning has been a national objective for nearly two decades. Terminal family planning methods such as vasectomy (male sterilization) and the reversible technique, IUD (intrauterine contraceptive device), have gained prominence and popularity only recently. Some six million couples have already been contracepted through sterilization and IUD. While these results are encouraging, they have made no appreciable impact on the high birth rate and the need for stepping-up family planning usage remains enormous.

1. It is estimated that 14 per cent of the children born in India die during the first year. Ashish Bose "Patterns of Population Change in India," 1967, p. 25, (published by Allied Publishers. Calcutta).

There is enough material available from follow-up studies of acceptors to give some idea of the factors that deter or those that are associated with acceptance. A close review of the characteristics of IUD and sterilization acceptors does indeed show certain denominators which may give a better understanding of the limits on motivation.

Twenty three studies -- 12 for sterilization and 11 for IUD -- have been reviewed with this objective in mind. ^{2/} Nineteen studies were from 9 States (Gujarat, Punjab/Haryana, Kerala, Madhya Pradesh, Mysore, Madras, Maharashtra, Uttar Pradesh, and West Bengal). One study was based on a review of data collected from clinics throughout India and 3 were from the Union Territory of Delhi. Nine studies were from a rural sample, 8 from an urban one and the rest from a mixed sample. The urban studies were conducted in 5 cities -- 2 in Bombay, 3 in New Delhi, and 1 each in Lucknow, Calcutta and Baroda. (See Table I).

The sample included studies by some of the leading demographic institutions such as CFPI, New Delhi; DTRC, Bombay; Institute of Economic Growth, New Delhi; PRAI, Lucknow; Gandhigram, Madras; Demographic Research Center, Trivandrum; and various Regional Health offices.

The sample size varied from 70 cases in one study to 40,335 in another.

There was, of course, some variation in the quality of research among the studies. The attempt here, however, was not to evaluate each study qualitatively but to see if any significant pattern emerged when all the studies were put together. A review of the studies in this manner showed that five characteristics

2. Gulhati, Kaval, Motivational Factors Obtained from a Review of Sterilization and IUD Acceptors, USAID/India Staff Memorandum, Draft Report and Chart (mimeographed), June 1968.

TABLE I
SOME KEY MOTIVATIONAL CHARACTERISTICS OF ACCEPTORS AS DETERMINED FROM STERILISATION AND IUCD FOLLOW-UP STUDIES 1

Follow-up Studies STERILISATION (1)	Children Party 2/ No. Living (2)		Sex of Living Children Boys Girls (3)		Income (Average Monthly) Rupees (4)	Literacy Wife % Literate (5)		Husband % Literate	Follow-up Studies IUCD (1)	Children Party 2/ No. Living (2)		Sex of Living Children Boys Girls (3)		Income (Average Monthly) Rupees (4)	Literacy Wife % Literate (5)		
1. Demographic Research Center, Trivendrum Sample: 40,355 (About 25% women)(Urban/Rural)	4.9	4.5	-	-	Below 100	80	-	-	1. CFPI, Murty (All India) Sample: 20,000	4	3.9	-	-	-	74	illiterate women had 4.7 children; school edu. 2.8 & college 2.2.	
2. Univ. of Kerala, Trivandrum Sample: 1,007 (200 women) (Urban/Rural)	-	4.2	2.1	2.0	Approx. 80	79	-	49	2. DTRC, A. A. Bhande & T.K. Roy Sample: 452 Banbury (Urban)	3.6	3.3	2	1.3	300	86	94	
3. Cameroonia, Kerala Sample: 2,024 (443 women) (Urban/Rural)	5.3	4.7	2.5	2.2	Approx. 60	70	82	90	3. DTRC, S.P. Maheshwari & S.L.N. Rao Sample: 1,007 Banbury (Urban)	-	3.0	1.9	1.1	-	-	-	
4. Vasectomy Camp, Mahatma Jai Prakash Sample: 78 (Rural)	6.0	-	-	-	Below 50	-	-	49	4. Inst. of Eco. Growth, S.N. Agarwala Sample: 847 New Delhi (Urban)	5.2	4.5	2.5	2.0	175	69	89	
5. Muzaffarnagar, U.P. Sample: 3,353 (15 women) (not known)	-	5.0	-	-	Approx. 100	-	65	-	5. CFPI, Kamela Rao Sample: 70 New Delhi (Urban)	-	4.4	-	-	Below 200	57	-	
6. Lucknow, Dr. S.N. Sinha Sample: 100 (Urban)	-	4.65	2.5	2.1	Approx. 180	54	-	76	6. Regional Health Office, Bangalore, H.K. Rao Sample: 307 (Rural)	-	4.6	-	-	-	-	-	
7. CFPI, Dr. A.K. Poddar, Delhi Sample: 225 (Urban)	-	4.6	2.7	1.9	Approx. 230	40	97	20% college had 3.0 illiv- ing children	7. P.R.A., Rural U.P. Sample: 951 (Rural)	6.5	4.1	-	-	-	10	39	
8. Calcutta, Dr. K.C. Panik, H.R. Sharma & D.P. Vieg Sample: 824 (Urban)	4.7	4.34	2.37	1.97	Approx. 100	-	99	30% college had 3.7 liv- ing children	8. Rural Loop Retention Survey, Kerala, G.B. Simmons & E. Weiss Sample: 829 (Rural)	7.0	5.0	-	-	-	18	51	
9. Belgaum Dist., Mysore, Dr. A.P. Katti Sample: 767 (Rural)	-	5.2	3.0	2.2	56 (90% Below 100)	-	60	-	9. Rural Loop Retention Survey, Rohilkhand, Sheila Ward & G.B. Simmons Sample: 821 (Rural)	7.4	5.0	-	-	-	18	54	
10. Regional Health Office, Bangalore Sample: 247 (Rural)	-	4.4	-	-	-	-	99	-	10. Regional Health Office, Bhopal Sample: 125	-	4.2	-	-	Below 300	77	-	
11. Maunat District, U.P., Thomas Poffenberger Sample: 892 (Rural)	-	4.7	2.9	1.8	23% of sample had 2-3 children and the boy/girl ratio was 2 to 1)	-	-	-	11. Gondaligan, Madras, M. Keshiyon Sample: 507 (Rural)	4.8	3.9	-	-	-	39	75	
12. Banda, Gulera, S.B. Poffenberger & D.L. Shukh Sample: 81 (Urban)	-	4.5	-	-	138	66	97	-									

1/ FOR OTHER CHARACTERISTICS SUCH AS RELIGION, CASTE, SOURCE OF INFORMATION ETC. SEE TEXT
2/ NUMBER OF CHILDREN PER MOTHER. * DASH MEANS NOT AVAILABLE

were consistently similar in each study, with slight rural/urban differences. These five factors were: parity (number of live births per mother), number of living children, sex of living children, education, and income.

1. Common Demographic Characteristics:

a. Parity: Eleven urban studies had parity data and in 9 of them the median number of child-births per mother was over 4.5. Of the other two, in one study median parity was 4.0 and in the second, 3.6. Among rural studies parity was even higher: Five rural studies had parity figures and the level was over 6 in four of them. In the fifth, parity was 4.8.

b. Average Number of Living Children: In nearly all the studies (18 out of 22 with data) the average number of living children was 4 or more. Sterilization studies had a range of 4.2 to 5.2 living children. Four IUD studies had a range of 3 to 3.9 living children but the rest (7 studies) showed a range of 4.1 to 5.0. This might indicate that most IUD acceptors were using the method more for termination than for spacing of child-births. Ten studies, 6 largely urban and 4 rural, had data on parity and number of living children. The difference between the number of live births and number of living children, in the urban category, ranged from 0.1 to 0.7 and in the rural from 0.9 to 2.4. Bearing in mind the problem of recall (that many husbands and wives do not remember the exact number of child-births particularly if some were still births or early infant deaths) it would still appear that on the whole those coming for sterilization or IUD, particularly in the urban areas, tend to have experienced a lower rate of infant mortality than the national average.

c. Sex of Living Children: Ten studies had information on the average number of sons and daughters per couple. Sons were obviously in greater abundance than daughters and ranged from 2 to 3 per couple in each study. The range for daughters was 1 to 2. Since having a son is regarded as essential, it would appear

from the data, that a couple with two living sons would become more highly motivated to practise family planning, than say, if there were 2 or more daughters but just one son.

d. Literacy: Nineteen studies had information on literacy. In twelve, over 70 per cent of the sample group (whether husband or wife or both) were literate. There was a distinct differential in urban/rural and in husband/wife literacy levels. In the urban studies, literacy levels of husband or wife ranged from 40 to 99 per cent whereas in the rural studies the range was 10 to 75 per cent. Literacy of the wives ranged from 10 to 86 per cent and that of the husbands from 39 to 99 per cent. Among rural studies, the lowest literacy levels for husbands (39 per cent) and wives (10 per cent) were from rural U.P. and the highest from rural Madras - husbands (75 per cent) and wives (39 per cent). The average rural/urban literacy levels for men and women in the nine States where these studies were conducted ranged from 17 per cent in Madhya Pradesh to 49 per cent in Kerala. The figure for the Union Territory of Delhi was 53 per cent.

Matching rural/urban and husband/wife literacy with corresponding figures for each state, one finds that literacy of the sample group was considerably higher in about every case and in some more than twice as high. For instance, 60 per cent of the sterilized men in Belgaum District, Mysore, were literate whereas the corresponding male literacy level for the district was 38 per cent. In a study in Trivandrum district, Kerala, 80 per cent of the sample group were literate as compared with 45 per cent literacy in Trivandrum district. In Gandhigram, 39 per cent of the wives who accepted IUD were literate. The literacy level for women in the Gandhigram sample area was only 19 per cent. (See Table II).

TABLE II

LITERACY LEVELS OF IUD AND VASECTOMY ACCEPTORS
AS COMPARED WITH GENERAL POPULATION IN THE SAME AREA

	Percent Literate* In State/District/City			Percent Literate among acceptors		
	<u>TOTAL</u>	<u>MALE</u>	<u>FEMALE</u>	<u>TOTAL</u>	<u>MALE</u>	<u>FEMALE</u>
GUJARAT	31	41	19			
Baroda City	34	45	23	-	97	66
HARYANA/PUNJAB	24	33	14			
Karnal	18	25	10	-	51	18
Rohtak	21	32	9	-	54	18
KERALA	47	55	39			
Cannanore	42	52	31	82	90	70
Trivandrum	45	53	37	80	-	-
MADHYA PRADESH	17	27	7			
Bhopal City	21	30	11	-	-	77
MADRAS	31	45	18			
Madurai (Gandhigram)	34	48	19	-	75	39
MAHARASHTRA	30	42	17			
Bombay City	57	65	49	-	94	86
MYSORE	25	36	14			
Rural Mysore	20	31	9	-	-	39
Belgaum	26	38	14	-	60	-
UTTAR PRADESH	18	27	7			
Rural U.P.	14	24	4	-	39	10
Lucknow City	29	39	19	-	76	54
WEST BENGAL	29	40	17			
Calcutta City	57	64	50	-	-	99
DELHI	53	61	43	-	97	40
				-	89	69
				-	-	57

* Including age group 0-19

Literacy is defined here as the ability to read and write with understanding. Sources are: Census of India, 1961, Final Population Totals, Paper No. 1, 1962; Census of India 1961, Social & Cultural Tables, Vol. 1, Part II-C; and Selected Follow-up Studies of Sterilization and IUD Acceptors as listed in Table 1 above following page 116 of this chapter.

e. Income: Fourteen studies had data on income. Nearly all of the men and women in these studies were in the fairly low income range with average monthly incomes of less than Rs. 300 per month. Only 4 IUD studies had income data and in all of these the average monthly income was above Rs. 175. In 7 studies the average monthly income was below Rs. 100. Since most couples had more than 4 living children this would give a per capita monthly income in the range of Rs. 15 to 50.

This result was expected as most of the studies were based on acceptors registered in free public clinics and hospitals or special family planning camps. The small well-to-do minority in India who can afford the services of a private doctor were, therefore, excluded from the sample. To some extent there also might have been slight underestimation of income among those who wished to qualify for free services. On the whole, however, this sample could be considered as representative of the vast majority of couples in the lowest rungs of the economic ladder. One might infer that since the sample group had higher literacy and "enough sons" their realization of their relatively poor economic condition was strong enough for them to try to avoid having more children. This is somewhat borne out by the four studies where reasons for sterilization were spelled out. In each of these studies 80 to 98 per cent had sterilization for economic reasons and "enough children."

2. Concluding Observations

a. From this review of follow-up studies the main conclusion that emerges is that the most motivated couple is one who is literate, has a low income and has 4 living children with at least two sons. The key motivating factors here could be pinpointed on literacy (of either husband or wife) and on having two sons. This might be borne in mind when looking at target groups for family planning. (For instance, it would be interesting to make the size of a possible acceptor group based on the numbers of married women with 2 sons, and then apply to this the prevailing male literacy rate.)

b. The sample as a whole and the urban group in particular had experienced relatively low infant mortality. If indeed the basic ability to read and write and child survivorship (particularly son survivorship) are the key factors, then perhaps adult education programs and programs aimed at lowering infant mortality should be more fully investigated. A computer simulation on son survivorship and family size in India also points to the manipulation of the infant death rate as a possible key motivational factor. 3/

c. There appears to be a remarkable parallel in the number of living children among sterilization and IUD acceptors. This indicates that as of now most couples seem to look upon IUD, and perhaps contraceptives in general, as terminal devices and not as means for spacing childbirths. 4/

B. The Basic Stages in Shifts from Attitude to Practise and the Appropriate Motivational Means

In the adoption of any new practise, research has shown that a population goes through four or five phases. The phases as applied to family planning are: 5/

- * Stage I: Awareness - The individual becomes aware of family planning and its possibilities. He becomes sensitized to the words but at this stage knows little or nothing about the details of family planning.

3. May, David A., and Heer, David M., "Son Survivorship Motivation and Family Size in India: A Computer Simulation." (mimeographed) 1967.
4. See also Dandekar, Kumidini, Communication in Family Planning Gokhale Institute of Politics and Economics, Poona, 1967.
5. Excerpted from Recommendations for Increasing the Acceptance of Family Planning, by Mayhew Derryberry, USAID/India Health Education technician, End-of-Tour Report, TOAID A-700, 1/18/67, USAID, New Delhi, 31 pp. UNCLASSIFIED.

- * **Stage II: Interest** -- The individual becomes interested in learning more about the details -- the different methods, the advantages and disadvantages of each, where he can get the supplies or services, and what it will cost in terms of money or personal inconvenience.
- * **Stage III: Mental Trial** -- In this stage the individual weighs the pros and cons of adopting family planning. Many factors other than the information or knowledge gained in Stages I and II come into play. The individual's goals in life, his attitudes towards the services, the attitude of his associates and elders, etc. all enter into the decision he makes.
- * **Stage IV: Small scale trial** -- (This step applies only to the reversible contraceptives.) The individual tries out the method for a period of time, before finally deciding to adopt one or another method as a regular routine. His decision to adopt depends in part on his satisfaction with the method and the social support he receives during this period of trial.
- * **Stage V: Adoption** -- This is the final stage towards which all family planning efforts are directed, namely the adoption of a continuously effective family planning method. (Sterilization being a one-shot affair does not go through Stage IV; an IUD that is retained does not go through Stage IV.)

Research has further shown that the method of communication that brings about the change in the individual differs for each of these stages and the message of communication that is appropriate changes with each stage. Mass methods of communication

are mentioned most often as the source of information in Stage I. Certainly, to create an awareness and favorable attitude, mass media is the most effective and economical method.

For Stage II, mass media are still mentioned as a source that influences the person, but dependence on individual sources such as government workers, neighbors and friends is more frequent at this stage than at Stage I. When one considers the kind of information needed for motivation to practise family planning at Stage II, it becomes obvious that much more person-to-person communication is needed at this stage. Here the people want to know all about the various methods and what is involved in using any one of them. It is not possible to inform an illiterate population on the radio or by any other mass communication method, how to fit a condom or diaphragm or explain what happens in an IUD insertion or vasectomy. This involves small group discussions and person-to-person contacts.

At Stage III, the kind of information changes. No longer does the individual want information about the methods. He needs answers to his questions or doubts. He also requires assurance and support from members of his social group whom he respects. At this stage the major source of information or influence is neighbors and friends, government workers, and leaders in his community. The main purpose of mass media at this stage is to keep the subject before the people and give support to the making of a positive decision. The message of mass media draws attention to the large numbers of people who have adopted family planning methods. It need not contain the same kind of information about family planning given earlier, or urge people to consider adopting contraceptives -- they are already considering a method.

While little research has focused separate attention on the stages of adoption, it does seem logical that in Stage IV

a couple's actual experience with the method under trial and the views of relatives and friends would determine the final decision. Once the person becomes an adopter, then obviously help from a family planning worker or encouragement from a satisfied neighbor would be more influential than, say, a family planning poster.

If the above analysis based on studies of the process by which people adopt other practises is applicable to family planning, then mass media needs to be used most extensively for groups that are not aware of family planning and to a lesser degree and with different messages for groups in other stages of the adoption process. Likewise extension educators, family planning health assistants and auxiliary nurse midwives need to be more precise in their contacts with the people and to coordinate their activities with the presence of mass communications and family planning services.

One other finding of the studies on adoption of new practises applies to the family planning program. In every society there is a minority group who accept any innovation as soon as they learn about it. They move immediately from Stage I and II to Stage V.

This phenomenon accounts for the rapid high response to the mass publicity campaign in Hooghly. ^{6/} But the mass of the people go through the other stages of adoption and require more time to consider the pros and cons before coming to a decision. They need more detailed information made available over a longer period of time, from a trusted source with whom they can discuss their questions and doubts. One can further hypothesize that the slump in the number of IUD

6. T.R. Balakrishnan and Ravi J. Matthai, Evaluation of a Family Planning Publicity Program in India, Indian Institute of Management, Calcutta (mimeographed) 60 pp. no date.

insertions and vasectomies after the initial high response was due to the failure to launch an adequate systematic educational program that would move the majority through the phases of Interest and Mental Trial to Adoption. Also the excessive removals can be due to the attempt by family planning workers to short-cut Stage III (Mental Trial) and omit Stage IV (Small scale trial.) If more supporting information had been given and a much better understanding developed, fewer removals might have taken place.

X. MASS COMMUNICATIONS

A. The Scope of the Mass Communication Problem

Rapid adoption of family planning practises on the scale necessary to curb India's population explosion requires the largest public education effort ever undertaken by any nation. This task entails continued dissemination of the concept of family planning for better family living and the continued provision of technical and program information to all corners of the country.

Standing in the way of informative and persuasive communication are formidable barriers:

- * The sheer size of the target audience, ninety million married couples and their rapidly growing families -- in fact virtually all of the entire 520 million.
- * Great diversities of language (13 languages, 387 dialects).
- * Wide dispersal and isolation of population. (80 per cent of the people live in 560,000 villages).
- * Widespread illiteracy. (75 per cent of the citizenry cannot read or write).
- * Limitations in radio reception, programming, and availability, (though All-India Radio covers 80 per cent of the country, there is only one radio for every 55 people and radio ownership is centered in cities and towns; at the same time the advent of transistors has helped India increase radio receivers

from 5 million in 1965 to over 9 million today).

- * Scarcity of cinema outlets in rural areas. (Despite tremendous popularity of films in India, 400 million villagers seldom have an opportunity to see motion pictures; at the same time total film attendance in India is extremely large, over 1 billion paid admissions annually).
- * Fledging state of television. (TV is confined to Delhi area and there are only 6,000 private sets plus 76 village community receivers in operation).

Although improvements in the nation's communication facilities and methods have continued since Independence, the family planning program confronts the necessity of structuring and implementing a nation-wide communications effort under phenomenally difficult conditions. Difficulties on the communication side, both in public information and staff communication, are a major obstacle to program operations.

B. GOI Mass Communications Strategy and Progress To Date:

About ten per cent of the family planning budget for 1967/68 and 1968/69 -- Rs. 30 million -- has been allocated to mass education and publicity.

Starting almost from scratch in 1966-67, the GOI has taken increasing action to strengthen its mass education efforts in family planning. A Mass Education and Media (MEM) Division was created in the Department of Family Planning in 1966 to devise and implement a specific plan of action for an information program aimed at making rapid and full use of existing media and exploring new means for circumventing current barriers to effective communication.

The basic approach and philosophy the Division arrived at is a simple one:

- (a) disseminate only a few messages;
- (b) present them in a few words,
- (c) make them meaningful, and
- (d) repeat them in the same form through all available and possible channels. 1/

The aim was to create wide public awareness of family planning and a desire for a small family.

Two major ingredients of this approach are the family planning symbol and slogan. A family planning symbol, the Red Triangle, has been developed to identify the program and the location of family planning facilities. The slogan "Do ya teen bachche... bus" ("Two or three children... enough") generally accompanies the cheerful faces of a family of four. Together these are used to propagate the family planning message to the fullest extent with available resources in motion pictures; on the radio; through a family planning song; in the press; on billboards; with wall paintings; on buses, rickshaws, railway coaches and carts; and through a variety of printed materials.

1. Posters and Signs

The Department of Family Planning is trying to display its basic symbol and slogan in every shape and size at its command. In addition to large posters, the message is also being publicized on match box labels and stamps. During 1967 60,000,000 match box labels were released. A special family planning stamp in the five paise series has been brought out and family planning slogans are used in the cancellation of mail.

1. GOI, Ministry of Health and Family Planning, Report 1967-68 (Faridabad: GOI Press, 1968) p. 190.

Some 6 million family planning posters have been distributed to the States, with the intention that they should be displayed at the rate of one billboard for 50,000 population and one bus board for 10,000 population. However, to date the use of these posters appears to be confined to health centers and a few large and medium sized cities and areas immediately surrounding them.

The GOI recognizes that the awareness campaign must be taken to the villages with intensified effort, and there is a growing feeling that the urban campaign should be diversified at the same time. Thought is being given to carrying the urban campaign beyond awareness (Stages I) to interest (Stage II) by mass producing materials which in effect anticipate questions and concerns the interested couple may have. There is also talk of the possibility of changing the slogan to "Do bachche... bus" ("Two children are enough.") This would be a significant change for it would indicate the seriousness of the GOI's desire to reduce the rate of population growth and would also be a realistic admission that millions of couples must have fewer than three children if India is to meet its targets and curb the growth rate in time.

2. Educational Material

In addition to posters and signs, the MEM Division disseminates its family planning messages through educational material they print and distribute in cooperation with the Directorate of Advertising and Visual Publicity (DAVP) of the Ministry of Information and Broadcasting. Over six million copies of four folders ("The Loop," "The Condom," "Sterilization," and "Family Planning How?") have been distributed to the States. 2/ Also the Department of Family Planning publishes

2. Agenda Item No. 3 (6) "Mass Education and Media Activities," Central Family Planning Council 4th Meeting, held on New Delhi, October 6-7, 1967, mimeographed.

a monthly newsletter "Centre Calling" to publicize decisions and actions of the Center and states and to high-light significant events and outstanding achievements. DAVP has been taxing to the full its very small direct mailing capacity to send a limited number of "Centre Calling" issues each month to opinion leaders and working staff in the field.

3. Newspapers

To supplement materials produced by the GOI for direct distribution, information is provided to newspapers for advertisements and special family planning supplements. Special family planning supplements were published by 230 newspapers and magazines during the September 1967 intensive fortnight campaign and by 430 newspapers during the December 1967 campaign. Regional "feature units" are being set up in the offices of the six Regional Director (FP) by the Press Information Bureau, Ministry of Information and Broadcasting, to prepare photo-features and other releases for newspaper use.

4. Radio

Important steps have been taken to increase the quantity and quality of family planning coverage on radio. Special family planning units consisting of an extension officer, a field reporter, and a script writer have been established in All-India Radio's 36 principal stations. A Joint Director and senior technical officer have been appointed at AIR/Delhi to coordinate the programming. Lack of radio receivers reduces potential radio coverage to an estimated 20 per cent of the population. There are only 9 million licensed radio receivers in India at the present time, and it is believed that no more than one million of these are located in rural areas.

To provide a minimum one community receiver per village 350,000 community receivers would be necessary. Though the number of receivers presently in use is small this number has really doubled in the last two years. To alleviate the shortage of receivers in rural areas the GOI has earmarked 50,000 transistor radios for field workers in hopes of enhancing their standing and influence in the community and keeping them informed of developments in the family planning program. Half of these radios are expected to be in place during the current year with the balance to follow shortly.

5. Films

Films are extremely popular in India as evidenced by the large audiences in commercial cinema houses (an estimated 10 to 20 million people each week, over 1 billion paid admissions each year). By necessity cinema houses are generally located in cities and larger towns. As a result of the popularity and influence of films, they are an excellent means of promoting the family planning message. Family Planning films are most readily introduced into commercial cinema houses in one of three ways: regular feature films with a family planning theme or message (the government is planning to award a grant to the best such film produced in the past year), and incorporation in to the weekly newsreels of interesting and significant film vignettes highlighting progress in the program.

6. Mobile Audiovisual Units

Audiovisual vehicles permit the combined use of a number of effective communications media: for example, motion pictures; recordings; handouts; speeches over loudspeaker systems; and slides. In addition, they provide a means of transporting family planning information officers and

specialists to remote areas. The Family Planning Department has been relying upon the Field Publicity Directorate of the Ministry of Information and Broadcasting for audiovisual vehicles to convey the family planning message. This arrangement has proved somewhat unsatisfactory, largely because the Field Publicity Directorate has only a modest supply of audiovisual vehicles which must service the needs of all important national information campaigns.

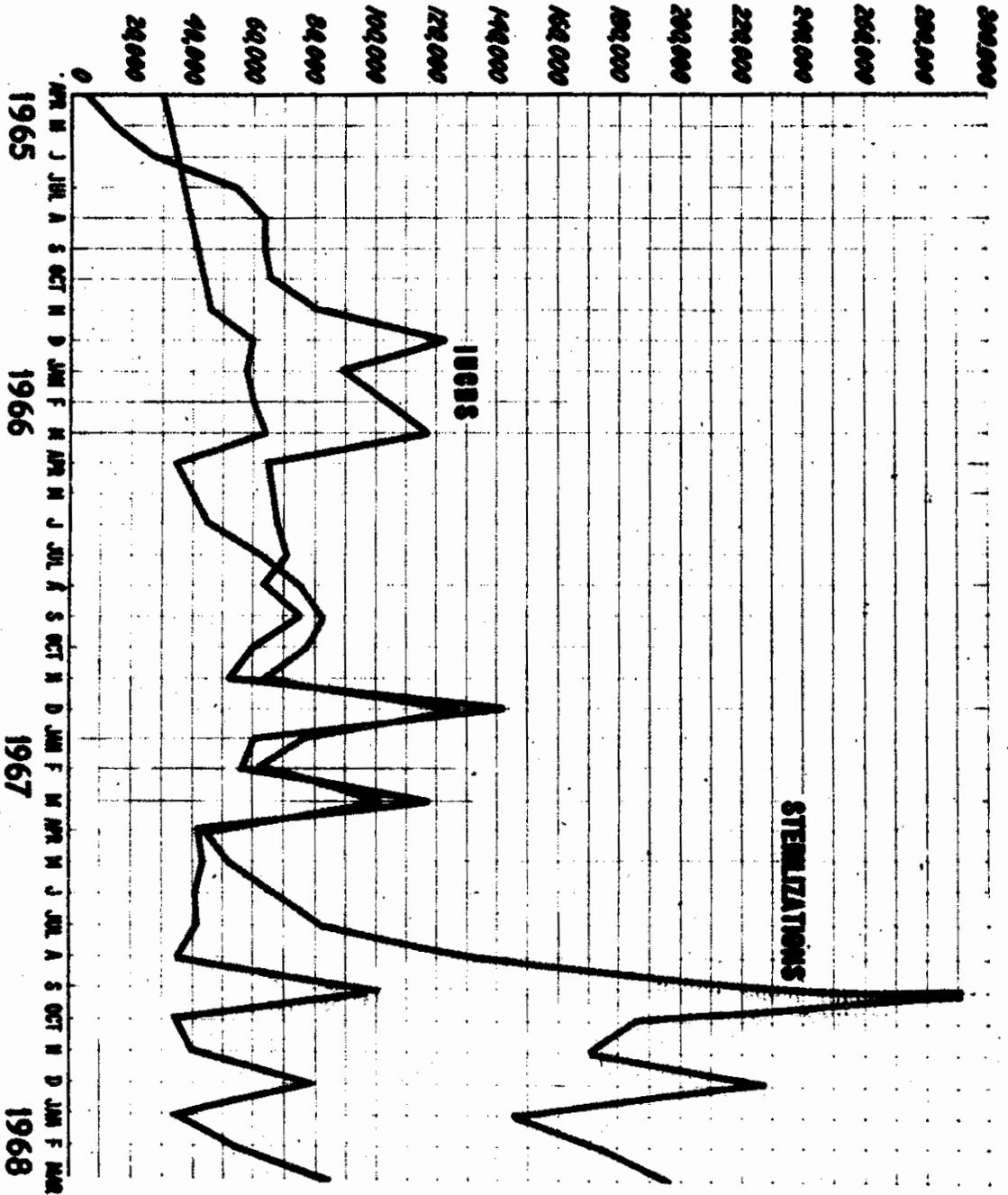
Other problems beset mobile audiovisual operations, including difficulties in vehicle and equipment maintenance, inaccessibility of many villages due to bad roads or bad weather, and an inadequate supply of effective publicity materials. The fact remains, however, that no substitute has been found for audiovisual vehicles in carrying directly a broad range of motivational and educational information to the rural areas of India. Inevitably great numbers of villagers turn out for a mobile film showing and information presentation. The Family Planning Department hopes to employ audiovisual vehicles as a major medium of rural education and make special use of them during intensive family planning campaigns by deploying vehicles to the target territories.

C. Intensive Family Planning Campaigns

A major and important motivation and communication innovation adopted by the GOI has been a program device that has become known as "The Family Planning Fortnight." Whether or not it is the prime causal factor, the peaks in IUD and sterilization acceptances coincide remarkably with the dates of the National Fortnights, as can be seen in the chart on the following page.

These fortnights are intended to mobilize the enthusiasm and services of family planning information officers, staff workers, and medical personnel behind a concentrated two-

ALL INDIA MONTHLY IUCD AND STERILIZATION ACCEPTORS



BEST AVAILABLE

week drive. The idea for such intensive campaigns on a national scale dates back several years. In December 1962, the first "family planning week" was held. It proved popular and a family planning week was held in December during the following three years.

In 1966, it was decided that the intensive campaign in December should be expanded to two weeks so that motivation could be stressed the first week and services the next. This experiment proved to be highly successful and in 1967 it was decided that there should be two National Family Planning Fortnights -- one in September and another in December.

During the September 1967 fortnight, seven times more sterilization operations took place and more than twice as many loops were inserted than in the average two-week performance in 1966-67 -- 215,610 sterilizations and 83,608 IUD insertions. ^{1/} At some places, performance during the fortnight exceeded the entire record for the previous year. Though the December 1967 fortnight was not as great a success numerically (143,289 sterilizations and 60,114 IUDs), it was highly encouraging because eight States and Union Territories which had previously lagged behind showed markedly improved performance. For example, Uttar Pradesh had performed 15,007 sterilizations and 6,739 loop insertions during the September fortnight, but in December, U.P. performed 38,559 and 11,552 respectively. ^{1/} The chart of month by month family planning performance points up the effectiveness of the intensive drives in September and December.

The effectiveness of the national fortnights has served as an example and model for the various states. Nearly all states have had at least one such fortnight or drive or their own in addition to the national campaign, for example, Punjab had six and U.P. three during 1967. Often these drives are limited to part of a state to permit ready concentration of increased staff and resources. The Director of Health Services

in Haryana has urged the Chief Medical Officers to observe the last week of each month as an intensive family planning week in hopes of achieving maximum results in implementing the family planning program in the state. 2/

Why cannot those involved in the family planning program perform intensively every week instead of just occasionally? Experienced officers at the Center take the view that Indians tend to get excited about things when a lot of "hoopla" is involved, when a campaign can be turned into a festival. This holds for family planning staff as well as the general populace. The average citizen is moved to take notice by the stepped up publicity and excitement, while the efforts of the family planning worker are sharpened not only by the pent-up atmosphere but by realization that performance in this unit -- be it block, district, or state -- will be compared and publicized against results in other units.

Wide dispersal of India's population compounds the difficulty of delivering the family planning message. As a result, the government has begun to take advantage of large crowds gathered for festivals, fairs and religious occasions, e.g. the Nauchandi Mela held in Meerut District just after Holi each year and the Kumbha Mela in Hardwar in April 1968. On such occasions the campaign is confined largely to awareness and the use of mass media techniques -- colorful posters and wall paintings, plus songs and music to attract people to an exhibition featuring big photographs of happy small families, blowups of pro-family planning quotations by prominent religious and national leaders, and counters where contraceptives can be seen and questions answered. We share the GOI's general view that it would be unwise to use these gala occasions to try to insert loops or perform operations.

In addition to the national and state fortnights and the awareness campaigns associated with already scheduled events, individual districts and private organizations sometimes mobilize intensive family planning campaigns. In Delhi, for example, the Family Planning Directorate sponsored an awareness and sterilization campaign in March 1967 in selected areas of the city. Its success prompted the Delhi Administration to continue the campaign in other sections of the city in April. At about the same time (February 27 - March 20, 1967) the Family Planning Association of Delhi carried out an intensive family planning drive featuring motivational programs. Similar campaigns have been conducted elsewhere, including Varanasi District, U.P., in August 1967; the Gannavaram tubectomy camp in Andhra Pradesh sponsored by the Panchayat Samiti in October-November 1967; and special drives in Rajasthan, Kerala and West Bengal in early 1968. There is every reason to believe that many local family planning drives go unreported to the Center.

The current USAID communications inputs to the family planning program provide potentially enhanced support for the intensive campaign concept. Audiovisual vehicles, printing presses, the direct mailing system--these resources lend themselves easily to intensive pushes to motivate and inform -- provided, of course, that family planning campaigns are fully supplemented by ready availability of adequate and proper services.

D. USAID Contributions

USAID's chief contribution to the GOI's communications and motivation program takes the form of commodity assistance to fill significant, immediate hardware gaps in family planning communications. Our agreements call for USAID technical advice,

where appropriate, in putting these commodities to optimum use. It is anticipated that this communications assistance will open the way for USAID to play a growing role in planning and implementing the Department of Family Planning's full range of communications activities. In the process USAID should have an opportunity to encourage the Center to tackle important questions in the realm of motivational research and program evaluation which have received inadequate attention in the past.

There are four main communications areas receiving USAID assistance: the direct mailing system; radio; films; and the communication activities contemplated under the intensive districts project.

1. Direct Mailing System

The Family Planning Department has sought to reach selected categories of persons on a regular basis to keep them informed about the program and directly involve them in its successful execution. Accordingly a direct mailing system is being set up at the Center which will produce and distribute program fact sheets, technical articles, brochures, and other literature to more than 500,000 persons by the end of the first year and more than a million by the end of the second. The planned volume by the end of the fourth year is 2 million individually addressed pieces per month. Recipients will include such groups as doctors, nurses, government officials, family planning field workers, school teachers and influential private citizens. Some 23 target groups are anticipated.

The direct mailing system will be an integrated system including editorial production, art work, copy preparation, photo-offset printing, mailing list organization and maintenance, mechanized addressing, and individualized mailing. For this USAID has obligated \$115,000 for the purchase of

printing, addressing, and related equipment which has been itemized in detail. In addition Rs. 334,000 are being provided to recondition, ship, and install Addressograph-Multigraph equipment, train Indian technicians on the job, and provide maintenance assistance for the equipment for twelve months. These inputs will be complimented by additional offset printing presses to be provided by the Swedish International Development Agency (SIDA).

It is anticipated that the system will expand progressively over a four year period. During the first two years, while the project is developing, a full-time AID-supplied production management specialist will supply guidance and oversee operations. Other AID technicians will be involved -- an experienced specialist in mechanized addressing of direct mail materials and mailing list maintenance -- as well as several short-term research consultants and machine-maintenance technicians as required (and requested). These technicians will train their Indian counterparts and phase-in their take-over of complete responsibility for the functioning of the system. The true effectiveness of the project will ultimately depend upon the quality of the inputs for mailing; the flow of material must be continuous and imaginative as well as informative. Depending upon the success of the central system, the direct mailing scheme may be duplicated in the states.

2. Radio

The importance of the development of radio facilities for family planning communication has been discussed. Radio is a valuable and economical means for daily dissemination of motivational and program information on family planning

permitting rapid and repeated transmission to all strata of the population. In an attempt to strengthen dissemination by radio of educational and motivational information for family planning, USAID is supplying two portable tape recorders to family planning information workers on the staffs of each of India's 36 principal radio stations; one recorder each for six Regional Family Planning Coordinators; and six for Center back-up exchange service -- a total of 84 tape recorders plus a two-year tape supply. Though no new or special technical advisory services by AID specialists are provided for, an AID/India information specialist will keep informed on the progress of the undertaking and provide assistance if requested.

3. Films

Another influential communication resource on the Indian scene is motion picture. The importance of increasing the quantity and quality of family planning films has already been emphasized. Positive steps have recently been taken to increase the volume and variety of family planning motion pictures, though these measures have been restricted by lack of resources. When the Ministry of Information & Broadcasting decided to establish in New Delhi a special wing of the Film Division for exclusive attention to the support of agricultural improvement and family planning, USAID assisted by providing a grant of motion picture equipment and supplies which had formerly constituted the Mission's Film Section in New Delhi.

Effective film media support of the family planning program will require continued augmentation to keep pace with the need. One excellent means of reaching 10 to 20 million people weekly is through the newsreels which are distributed each week to all of India's cinema houses, then later to villages via mobile vans. The GOI Films Division has agreed to include a filmed family planning event in every newsreel, provided material

is forthcoming. To assist this effort, USAID has agreed to supply two 35 synchronous-sound camera units to enable the Family Planning Department to hire camera crews and obtain regular sound-film coverage of family planning program activities for use in the nationally-distributed newsreels. Good footage will be catalogued for re-use in film documentaries about family planning.

4. Intensive Districts

The GOI is well along in the planning stages of an intensive district program. The most populous 51 of India's 325 districts have been designated for concentrated attention and increased inputs. These 51 districts contain approximately one third of India's 52.0 million people. These districts will have priority in receiving sanction of staff, facilities, and transport as well as additional inputs for testing and demonstration experiments. Motivation, research and evaluation programs will also be carried out intensively in these districts. In a sense, the intensive districts will serve as a field laboratory for determining the optimum cost benefit mix required to accelerate the practise of family planning. In addition, because of the very size of the population they contain, successful efforts here could make a noticeable dent in India's overall population growth rate. The activities in these districts will be continually reviewed and appraised and where appropriate extended to other districts of the country.

How fast the GOI will move in implementing intensive efforts in all 51 districts has not yet been decided. However, it seems probable that initial concentration will be in 17 of these 51 districts. This is because USAID has agreed to provide assistance for seventeen districts, generally one in each of India's major states, as initial support for the concept. AID commodity assistance will be primarily in the communications realm. As these districts staff up for effective use of commodities, AID will supply each

intensive district with 5 audio-visual vehicles, one offset printing press, and a film screen kit. This equipment will be used in the local family planning promotion and information effort as well as to support clinical, training, and field work in the district programs.

The 5 audiovisual vehicles for each district (a total of 85 vehicles in all) will contain high-quality portable equipment supplied by AID including a 16 mm motion picture projector; a tape recorder; outdoor flood lights; a portable generator; a record player; a screen; and replacements and spare parts for all equipment. The GOI will provide a slide projector, public address system, transformers, and cables and cords for each vehicle. The vehicles will be used chiefly to increase public awareness, understanding, and participation in family planning programs in the intensive districts. Maintenance of the audiovisual vehicles is to conform with provisions set forth in the vehicle loan paper.

As for the one offset press for each of 17 intensive districts, there is a great need for localized treatment of subject matter and for prompt and ample production of family planning communications materials throughout India. Offset printing facilities located in the 17 districts will be used to keep field workers and village leaders abreast of latest information and to produce materials for distribution to couples of child-bearing age. In addition to the presses themselves, AID will provide spare parts, repair kits, and items such as flash cameras, printing ink, and printing chemicals. It is anticipated that printing equipment specialists from the U.S. will be invited to train operators and maintenance technicians.

As an important step in staffing the intensive district concept at the Centre, the GOI has agreed to designate one high-level officer in charge of the overall program and another to run the communications program. AID will designate specialists from its staff in Delhi to work with these officials.

XI. MOTIVATION: INCENTIVES

The Indian Government and its constituent States have incorporated incentives of several kinds in its family planning program, among them compensatory payments for sterilizations and IUD's, paid to doctor, client and canvasser; scholarships to encourage recruitment for service in rural areas; and even, in a few cases, the use of disincentives. The possibility of using a deferred payment bond scheme as an incentive has been proposed by a USAID economist. These are briefly discussed in the following sections.

A. GOI Incentives for Sterilizations and IUD's

Some of the earliest programs offering monetary incentives for family planning were started in India. The Government took the initiative in supporting these programs in the States. Madras was the pioneer in this field when it began a monetary incentive scheme for vasectomy in 1958-59. Other State governments soon followed suit and within 10 years all the States in the Indian Union had an incentive program -- at least on paper. ^{1/}

The payment of monetary incentives for a higher rate of achievement of family planning programs remains a highly controversial subject. One economist has estimated that financial incentives might be paid at a rate as high as twice the per capita income and still be worthwhile in terms of the economic value of preventing one birth. ^{2/} This is far from the present plan, however, for the GOI endorses financial payment to recipients of contraceptive services only

1. See USAID/India Staff Memorandum, by Gulhati, Kaval, Summary Note and Table, "Comparative Data on Compensatory Payments Targets and Performance," Draft Report (mimeographed) 4 pp. February 1968.
2. Steven Enke, "The Economic Aspects of Slowing Population Growth," The Economic Journal, March 1966.

as reasonable reimbursement for expenses incurred -- it is to be a repayment and not a bonus for accepting the service. The value of payments to staff personnel has been recognized, however, and in October 1966, the GOI decided to allocate 20 per cent of the total family planning budget to compensatory payments. As an incentive for the States to push the program, the Center agreed to pay Rs. 40 per tubectomy, Rs. 30 per vasectomy, and Rs. 11 per IUD with the allocation among patients and various staff members to be determined by all individual States. The Center has been considering eliminating all payments to patients and had reached initial agreement on this, but implementation has apparently been delayed.

In the twelve months following the introduction of these compensatory payments, 1,160,000 sterilizations were performed in India. This number is almost double that of the previous 12 months, 650,000. Although the rate of increase is similar to some previous increases this upsurge could be due in part to the monetary incentives introduced by the GOI in October 1966. Every State except Madras, where the momentum has slowed down recently, showed a tremendous surge in sterilizations. The introduction of the loop incentives, however, did not show any upward trend in loop insertions.

Four States give individual incentives (to the patient) for vasectomy in the Rs. 20 - 30 range, the rest give Rs. 15 or less. Of these four, Madras ranks first in performance and Kerala and Maharashtra tie for second place. However, the fourth State, Bihar, has about the poorest performance on record. In the case of Madras, Maharashtra and Kerala there appears to be a correlation between the size of the incentive to the individual and performance but not in the case of Bihar. The inference here would be that while Madras and Maharashtra have been actively "selling" vasectomy to the people, Bihar has been rather passive in its propaganda.

Compensatory payments for IUD cases appear to be less effective as a means of increasing the number of acceptors, and understandably so, since the level of payment is considerably lower than that for sterilizations.

Madras and Bombay illustrate the positive effect of compensatory payments. In Bombay, the paid motivators are considered the major cause of the railway program's success, and in Madras the removal of the incentive to canvassers in 1963 resulted in a sudden decline in the level of cases. When incentive payments were re-introduced in mid-1964 the trend was reversed and the earlier high level was even surpassed. With no other obvious changes in the program, this would seem to be a clear indication of the effectiveness of incentives, particularly incentives to canvassers. However, since then the program in Madras has fallen off with no apparent change in the incentive program. (It has been suggested that this may be the result of saturation at this incentive level, but there has been no survey to verify this or any other reason for the decline.)

It appears then, that the existence of an incentive program at the levels tried is not sufficient to ensure the success of the family planning program. Active promotion of the overall program by the government remains vital, and is probably the real key to success.

B. Disincentives

Suggestions for negative reinforcements, such as requiring compulsory sterilization after three children or even imposing a penalty for having more than three children in the form of higher taxation, have been made for consideration of both the Central and State Governments.

In July 1967, the Chief Ministers' Conference in New Delhi recommended drastic measures to control population growth. They felt that the age of marriage should be raised,

abortion law liberalized and compulsory sterilization be enforced after three children.

Maharashtra has taken the lead in initiating measures of this sort. Effective August 15, 1968, in Maharashtra, those who do not restrict the size of their families to three living children or to their present size will forego free medical treatment and maternity leave with full pay; allotment in state housing board colonies or of government quarters. Political sufferers, freedom fighters and defence services personnel will also lose certain concessions such as fellowships and provision of free books for their children.

Only four other states have laid down rules to discourage large families but they affect insignificant sections of the population as they are applicable to the state Government employees only. In Kerala, female state Government employees having three or more living children are not granted maternity leave. Similar orders are in force in Mysore and Orissa.

Uttar Pradesh has decided that maternity leave would be given to women employees only three times during their service period. No Government servant would get the facility of delivery and medical treatment free of cost in a Government hospital if the size of the family exceeds three children. These orders will come into force from January 1, 1969. 3/

C. Other Incentives

Most of the other schemes developed by the central or state Governments are designed to encourage recruitment:

1. A Central Family Planning Corps of doctors has been set up for meeting the requirements of those states which have shortage of doctors. These corps doctors are given special allowance for working outside their state of domicile.

3. The National Herald (New Delhi), August 12, 1968

2. Some 2,500 scholarships of Rs. 100 each per month have been sanctioned and are being awarded to medical students, mainly women students, against their binding themselves to serve this program after the completion of their courses, for the same period for which they availed of the scholarship.

3. To attract doctors to work for family planning program in rural areas, action has been taken to provide residential facilities for them.

4. To provide added attraction for the medical personnel to work for family planning program, some of the states have agreed to extend the tenure of their services beyond the age of superannuation.

5. Mobile duty allowance of Rs. 50 and Rs. 20 per month has been authorized for nurses and attendants respectively posted with mobile units, in addition to the normal daily allowance admissible to such staff.

6. In addition to these incentives, the GOI has laid out a series of eleven national awards to states and other institutional groups for best performances in sterilizations and loop insertions, setting aside Rs. 1,000,000 for the purpose. A proposal to give a prize worth Rs. 10,000 in the form of a school to a panchayat in a state for outstanding performance is also under consideration.

The Small Family Norms Committee has reviewed the present system of incentives and disincentives and recommendations were reportedly issued in April 1968. Final decisions are not yet known.

D. Proposed Deferred Payment Bond Scheme

So far, USAID has proposed no formal programs in this area, its activities being limited to informal efforts by interested

persons, as, for example, the schemes proposed by Dr. Ronald Ridker, the Economic Advisor. He has proposed two schemes which are deliberately geared to overcoming problems of the type indicated above, one for organized populations where data on and control over the population are good, and the other for use in less well-organized settings. The principal character of these schemes is that they involve deferred payments. Such payments have advantages over immediate payments, the only type that has so far been tried, in that (a) they can be linked to the need for old age security and as such be viewed as a compensation for having fewer children to support one in old-age; (b) since the bulk of the payments occur in the future, much larger payments can be afforded; and (c) they provide more latitude to emphasize non-terminal methods.

The first proposal involves the use of a blocked savings account into which monthly payments are made so long as the couple agrees to a family planning regimen. The second, principally meant for villages and urban settings where data on the population is poor and migration may be high, is a bond payable at a fixed interval from the date of issuance, which may under certain circumstances include interest-bearing coupons. The first proposal is currently being considered for private financing by several tea estates. If accepted, it will constitute an important social experiment that may have repercussions elsewhere. The second proposal has been written up as a paper for informal circulation and possible publication to generate interest and debate in India. Neither proposal suggests any AID involvement, financial or otherwise.

E. USAID Comment

To date, USAID has taken no formal position on either the GOI incentives program or the proposed bond program, nor is one contemplated for the time being.

It is difficult to work out the details of schemes and experiments that have a high probability of success and a low probability of backfiring in politically sensitive ways, both here and in the U.S. Since these schemes involve transfer payments, their resource costs are minimal, and consequently, an offer of rupees by the U.S. would not permit the GOI to do anything they cannot do now. The possibility of tying expenditures on monetary incentives to additional foreign exchange or food aid does not seem feasible as it would conflict with AID's stated policy of non-coercion in family planning programs.

Furthermore, in the immediate future, at least, any more active role by AID, or the GOI for that matter, is likely to endanger the efforts to obtain private financing for the tea estate scheme. The tea estates are willing to consider this scheme because they see it as an offset to the substantial maternity benefits they now have to pay. But they would postpone any decision on the matter if they thought there were a possibility of obtaining financial assistance for the scheme.

Within a month or so reactions to the deferred bond proposals will be clear. By that time also, a long-awaited report to the GOI by an expert committee looking into the possibilities of using incentives should be available. If the tea estates scheme is accepted within the next month or so, valuable evidence on many of the open questions about monetary incentives could begin coming in within six months. In a relatively short time, therefore, USAID should be in a far better position to take a definite stand on issues relating to monetary incentives than it is today.

F. The Use of Compensatory Payments to offset Manpower Shortages.

A large portion of both academic and official discussion on the value of incentives centers on the motivational influence of the payment to the client, particularly the vasectomy client.

This discussion overlooks the much more qualitative role that this interim GOI device has played in getting local satisfied users to be effective motivators in bringing in other candidates for vasectomies.

The amount paid to the canvasser is not very much (2 to 10 rupees). Among the servants of USAID technicians here in New Delhi there are enough enthusiasts to document the fact that the time involved in persuasion is far more than would be financially compensated by the few rupees per case incentive.

What has happened is something no one expected at the outset: Especially in the cities, men who already had too many children to support came in initially to be vasectomized and went out to be missionaries. These men, with little income or perhaps even unemployed at the time, became the personal proclaimers of the economic virtues of vasectomies.

As the Secretary, Mr. Govind Narain, describes the phenomenon, what began as a device to offset the shortage of trained social workers, health educators, and extension educators, proved more successful than the original plan.

"It was found that despite all the efforts made by different organizations in the past 15-20 years, it had not been possible to reach the uneducated and poverty-stricken masses living in 'jhuggies.' Neither the governmental machinery nor the

machinery of voluntary organizations was able to bring people from this group, which, in my judgment, is the one needing family planning assistance most. Therefore, the Government of Maharashtra thought of changing the old pattern and taking the help of motivators or helpers.

"The results are in themselves the best proof of the soundness of what they have done. They are getting nearly 90 per cent of the motivated people from among groups which hitherto were almost untouched. It can, therefore, be said that the helpers or motivators are natural 'leaders' of the groups they are working with. Some one may call them 'Dadas' or 'bullies.' But it is certain that they have been able to do their job. They have been able to approach these 'jhoparpattiwallahs' and have been able to tell them about the need for having small families. I have reasons to believe that people who have come have not come out of fear of the so-called leaders but out of their own free will and their own conviction. As long as these criteria are answered, I think that these people who had been termed as 'motivators' are really health educators, or extension educators. And as such, there is full justification for giving them some remuneration." ⁴/

It is this kind of pragmatic assessment that has underwritten the incentive program to date. None of the top leadership believes that incentives to motivators, or to clients, will in the long run replace the kind of permanent health and family planning personnel, well trained with practical experience and

4. Govind Narain, Family Planning Strategy in India, DTRC Lecture Series No.1, October 27, 1967, published by DTRC, Chembur, p. 9.

adequately supported in place at the local level, which the long range plans envisage. But, meanwhile, motivational achievements are taking place in the urban slums, and, to a less degree, in the rural areas despite the lack of professional staff in position as planned.

It would be interesting and informative to review the characteristics of these men -- not as acceptors but as persuaders and the content and type of their motivational approach. Additional keys to improved motivational approaches may be very close at hand.

XII. THE GOI PROGRAM: TARGETS

Although the vital importance of slowing down the rate of population growth has been officially emphasized by the Government of India since the First of its successive Five Year Plans, the specific target of reduction of the birth rate to 25 per thousand was not time-bound to the date of 1975-76 until 1966. Earlier statements, including the earlier draft of the Fourth Five Year Plan stated only that the goal was to reduce the birth rate "to 25 per thousand as expeditiously as possible",^{1/} and the recent summary Fourth Plan Approach Paper states only that:

The family planning programme has been given the highest priority and has already been accepted as a Centrally-sponsored programme for a period of ten years. Whatever can be usefully spent on the programme may be provided and it may be ensured that performance is commensurate with the expenditure incurred. The approach should be to achieve enduring results through building up appropriate motivation. The programme needs to be backed by adequate research.^{2/}

The now widely quoted targets of reduction to 25 by 1975-76 and, more recently, to 22 by 1978-79 were independently adopted and announced by the Department of Family Planning shortly after its organization as a separate department in April 1966, with the deliberate intent thereby to stimulate an all out effort. The phrase "target-oriented time-bound scheme" has been often used to distinguish the intensified effort made in the past two years from the "extension approach" adopted in 1962-63.

This decision has dramatically defined the size and immensity of the task and, additionally, has served to force those responsible for forward program planning to focus on both the

1. Fourth Five Year Plan, A Draft Outline, Government of India Planning Commission (October 1, 1966) p. 345.

2. Approach to the Fourth Five Year Plan, Planning Commission, Government of India, 12 May 1968, p. 27.

absolute numbers of couples to be reached by each of the main contraceptive methods as well as on the relative contraceptive effectiveness of the methods to be offered. As described below, the overall goal has now been translated to year by year, method by method program targets within which the GOI hopes to achieve its 1978-79 goal of 22 births per thousand.

This exercise and its results, in which a large number of distinguished Indian demographic and family planning officials and experts have taken part, represents a significant contribution to the development of additional methods of systems analysis by which the logistic requirements of a family planning program can be identified and projected.

An inherent danger has been that these targets are often simultaneously being considered not primarily as projections of requirements, but as predictions of probable progress and success.

The sections which follow describe the 1964 Expert Committee Projections, the only official GOI population growth projection which is available to date; the Department of Family Planning's Fourth and Fifth Year Perspective Plan; and lists some recent studies on methods of assessment.

A. The Expert Committee 1964 Projections^{3/}

Faced with the problem of providing a uniform set of population estimates which could be used as working assumptions

3. This analysis is excerpted from the monograph prepared by USAID Consultant demographer, Dr. George Stolnitz, An Analysis of the Population of India, USAID, July 1967, pp. 6-8.

by the Center and State Governments in developing their prospective Plan programs, the GOI Planning Commission appointed an Expert Committee charged with developing a set of population projections for the period 1966 through 1981, and these were presented in 1964.

It should be emphasized that these were not intended to be predictions. In fact the Committee specifically indicated that India's family planning program was too new and the experience of other countries too far removed from the Indian situation to permit any really firm judgements.

The Committee developed a set of three projections, each based on alternate fertility estimates. As shown in the Table on the following page, these show a low-to-high range of 554-563 million for 1971, 615-643 for 1976 and 666-723 for 1981. The preferred medium projections fall very nearly in the middle of these intervals.

The high projections assume no fertility change in 1966-70, a 5 percent decline in 1971-75 and a 15 per cent drop in 1976-80. The medium projections presuppose 5, 10 and 20 percent declines, respectively, for these periods and the low projections 10, 15 and 25 percent.

The single mortality assumption underlying all three of the 1964 national projections is that expectation of life at birth would rise by .9 years annually during 1956-70 and then rise somewhat more slowly, by .75 annually, during the following decade. The Committee hypothesized that the main cause of death in the 1970's may be less readily controlled than in the 1950's and 1960's. The year 1956 is the center of the period covered by the 1951-60 official life tables, which show 41.9 as expectation of life at birth for males and 40.6 for females. The death rates resulting from these assumptions start at 17.2 for 1961-65, move down to about 14 in 1966-70, reach approximately 11 in 1971-75 and end at somewhat over 9 by 1976-80. (For each period the rates differ

EXPERT COMMITTEE 1964 PROJECTIONS DATA
POPULATION, 1966 - 81, AND BIRTH, DEATH AND GROWTH RATES
1961 - 65 TO 1976 - 80

<u>Period</u>	<u>Type of Projection</u>		
	<u>High</u>	<u>Medium</u>	<u>Low</u>
a. Population (Millions)			
1966	494	494	494
1971	563	558	554
1976	643	629	615
1981	723	693	666
b. Birth Rates (per 1,000)			
1961 - 65	41.0	41.0	41.0
1966 - 70	40.5	38.6	36.8
1971 - 75	38.3	35.1	31.8
1976 - 80	32.8	28.7	25.0
c. Death Rates (per 1,000)			
1961 - 65	17.2	17.2	17.2
1966 - 70	14.2	14.0	13.7
1971 - 75	11.7	11.3	11.0
1976 - 80	9.4	9.2	9.0
d. Growth Rates (%)			
1961 - 65	2.4	2.4	2.4
1966 - 70	2.6	2.5	2.3
1971 - 75	2.7	2.4	2.1
1976 - 80	2.3	2.0	1.6

by about .5 per 1,000 as between the low and high fertility projections, reflecting the differing effects of the latter on age composition and thereby an average mortality for all ages combined). The mortality measures by age needed to move the population through successive periods are derived from the standard age-specific patterns corresponding to levels of life expectancy which have been developed by the UN. (so-called "Model Life Tables"). Throughout, heavy emphasis is placed by the Committee on the gains in mortality achieved as a result of public health and medical advances during the 1950's in India and other low-income countries. This mainly explains the continued rapid pace of advance anticipated to continue throughout the projection periods. International migration is ignored as negligible.

With respect to growth rates, the high projection implies a peaking during 1966-75 at 2.6 to 2.7 per cent, followed by a drop to 2.3 to 2.4 per cent in 1976-80 as the assumed fertility fall-offs begin to take hold. The medium projection implies that the growth rate is at its peak about now and should decline to about 2 percent in another decade. The low projection implies a decline from 2.3 during the present quinquennium to about 1.5 percent in another 10 years.

Up to the present time, these projections remain the only official GOI projections in use. So far as is known, no other refinements are being made, other than to break the estimates down into urban and rural groups. Probably because there are no substitute projections, the tendency to consider them as official predictions has grown. A pertinent example is found in the monthly reports of the Department of Family Planning which uses the Expert Committee's medium projections for 1966-70 as its estimated current birth, death and growth rates, i. e., 38.6, 14.0 and 2.46 percent respectively.

B. GOI Fourth and Fifth Perspective Plan: 1966-67 Through 1978-79

Within the framework of the long term target of lowering the birth rate to 22 per thousand by 1978-79, the Department of Family Planning has established annual all-India targets, which are then sub-divided and allotted to the States for execution, as well as a ten year plan.

1. Annual Targets

The first year in which this was attempted, 1966-67, the IUD target was 20 per thousand in urban and 10 in rural areas, and sterilizations were set at 2.5 per thousand. In 1967-68, the target was set at 4 IUD's and 8 sterilizations per thousand and in the current year, 1968-69, the targets are at the rate of 4 IUD's, 6 sterilizations and 6 regular conventional contraceptive users.

Although it is true that the States have a great deal of autonomy in designing and carrying out their own programs, the funds allotted for family planning by the Center are based initially on the targets assigned, and ultimately on actual performance reported. The largest portion of the Center's annual budget is for salaries of staff and monetary compensation for sterilizations and IUD insertions.

The pressure for creditable performance thus laid on the field worker is not solely psychological and the targets are becoming more than an estimate of what might be required if the birth rate is to be lowered. They appear to be being built into the system as a measure of individual worker performance and as a precondition for payment of program funds.

The announcement and allocation of the 1968-69 targets, reproduced on the following page, conveys something of this tone.

2. GOI Perspective Plan: 1967-68 to 1978-79

During the winter and spring of 1967-68, the Department

YOUR TARGETS FOR
THIS YEAR

The 1968-69 all India target for IUCD insertions is 2.1 million and for sterilizations 3.2 million.

The targets for each of the States and Union Territories are as follows:

S.No.	Name of State/ Union Territory	IUCDs	Sterilizations	Conventional Contraceptives (No. of users)
1.	Andhra Pradesh	1,67,126	2,50,690	2,50,690
2.	Assam	59,395	89,092	89,092
3.	Bihar	2,21,719	3,32,578	3,32,578
4.	Gujarat	1,01,432	1,52,148	1,52,148
5.	Haryana	38,258	57,387	57,387
6.	Jammu & Kashmir	15,818	23,728	23,728
7.	Kerala	81,096	1,22,544	1,22,544
8.	Madhya Pradesh	1,56,268	2,34,403	2,34,403
9.	Madras	1,53,438	2,30,158	2,30,158
10.	Maharashtra	1,91,907	2,87,861	2,87,861
11.	Mysore	1,12,626	1,68,940	1,68,940
12.	Orissa	83,189	1,24,784	1,24,784
13.	Punjab	56,117	84,176	84,176
14.	Rajasthan	1,00,157	1,50,235	1,50,235
15.	Uttar Pradesh	3,49,618	5,24,426	5,24,426
16.	West Bengal	1,71,506	2,57,260	2,57,260
17.	Nagaland	1,680	2,521	2,521
18.	A & N Island	346	520	520
19.	Chandigarh	604	906	906
20.	Dadra & Nagar Haveli	278	417	417
21.	Delhi	15,516	23,274	23,274
22.	Goa, Daman & Diu	2,706	4,060	4,060
23.	Himachal Pradesh	13,862	20,793	20,793
24.	Manipur	4,174	6,261	6,261
25.	L.M. & A. Islands	108	161	161
26.	NEFA	1,532	2,298	2,298
27.	Pondicherry	1,730	2,595	2,595
28.	Tripura	5,737	8,605	8,605
	TOTAL	2,108,543	3,162,821	3,162,821

The targets are at the rate of 4 IUCDs, 6 sterilizations and 6 regular conventional contraceptive users per 1,000 population.

All States and Union Territories are requested to further break up these targets for their field workers.

At least 50 per cent of the IUCD and sterilization targets have got to be achieved. Beyond this limit the targets can be interchanged at the rate of three IUCD insertions equal to one sterilization.

of Family Planning engaged in extensive studies designed to translate its long term target objective into more specific program terms.

While the studies are by no means considered complete and critical examination of both feasibility and comparative contraceptive effectiveness is continuing, by March 1968 a draft plan was agreed within the Department of Family Planning and was submitted to the Planning Commission.

The general magnitudes and proportionate combinations of IUD's, sterilizations and conventional users can be seen in the summary table on the following page.

In terms of the numbers of couples to be contracepted, achievement of these targets would call for some 5.6 million sterilizations in 1978-79 (as compared with 1.8 million already reported for 1967-68) and another 5.6 million IUD's inserted. The IUD target would require reaching almost ten times as many women in the last year as were reached in 1967-68. The target for conventional contraceptive users, about 11 million, appears to be consistent with the projections built into the condom program.

None of these figures is outside the realm of logistic feasibility, particularly since condoms can be distributed through commercial channels and both sterilizations and IUD insertions can be done by mobile teams. Whether a program of this size will in fact result in the hoped for reduction in the birth rate, however, will depend, not on numbers alone but on the age and fertility of the couples themselves, as well as the continuing use rate for IUD's and the effectiveness rate of condoms.

The problem of how to measure the actual or potential effect on the birth rate has assumed heightened importance in the growing concern with India's program and has produced several new approaches and methods.

GOI FAMILY PLANNING TARGETS: 1967-68 THROUGH 1978-79

Fiscal Year	April 1 Population (1,000's)	Birth Rate	Death Rate	Targets per 1,000 population			Couples to be Contracepted (Millions)		
				Sterilizations	IUCD Insertion	Conventional Contraceptors	Sterilizations	IUCD Insertions	Conventional Contraceptors
1	2	3	4	5	6	7	8	9	10
1967-68	509,176	37.8	14.8	4.0	1.0	2.0	1.8	.6	1.0
1968-69	520,886	36.2	14.2	5.0	2.0	5.0	2.6	1.1	2.6
1969-70	532,345	34.6	13.6	6.0	3.0	8.0	3.2	1.6	4.3
1970-71	543,524	33.0	13.0	7.0	4.0	11.0	3.8	2.2	6.0
1971-72	554,394	31.4	12.4	7.5	5.0	13.0	4.2	2.8	7.3
1972-73	564,927	29.8	11.8	8.0	6.0	15.0	4.6	3.4	8.5
1973-74	575,095	28.2	11.2	8.0	6.5	16.0	4.6	3.8	9.3
1974-75	584,871	26.6	10.6	8.5	7.0	17.0	5.0	4.1	10.0
1975-76	594,228	25.0	10.0	8.5	7.5	18.0	5.1	4.5	10.8
1976-77	603,141	24.0	9.7	9.0	8.0	18.0	5.5	4.9	10.9
1977-78	611,765	23.0	9.4	9.0	8.5	18.0	5.5	5.2	11.1
1978-79	620,085	22.0	9.1	9.0	9.0	18.0	5.6	5.6	11.2

Sources: 1967-68 and 1968-69 Population Figures from Center Calling, April 1967 (Vol. II, No. 4, p.1) and May 1968 (Vol. III, No. 5, p.8); Birthrate and death rates are based on Expert Committee Low Fertility projection estimates.

C. The Need for Methods of Assessing Progress in Family Planning Programs

As pointed out in Chapter One, there are wide variations in the professional estimates as to what the present birth and death rates are in India, for the country as whole or for particular areas. It might be assumed that if a really comprehensive, reliable and up-to-date system of vital statistics registration existed, the question of how to measure the effect of the family planning program on the birth rate would be purely academic: Frequent sample registrations would provide practical and realistic answers.

This is not, however, the case in India -- if indeed anywhere -- and therefore there is more than the usual interest in finding methods by which, in spite of the uncertainty as to current birth or death rate levels, it would still be possible to measure the impact of any given program on fertility trends.

The papers presented at the Workshop on "Target Setting", convened at Lucknow, February 19, 1966, by the Central Family Planning Institute, provide an interesting and stimulating catalogue of several of the approaches as well as an inventory of most of the leading Indian specialists engaged in the problem:

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| S. N. Agarwala, | <u>Family Planning Targets</u> , Demographic Research Center, Institute of Economic Growth, Delhi. (now DTRC) |
| M. Mukta Sen, | <u>Targets for Family Planning Programs in India</u> , All India Institute of Hygiene and Public Health, Calcutta. |
| P. S. Bhatia, | <u>Targets for IUCD insertions and its impact on Birth rate in India</u> , Central Family Planning Institute, New Delhi. |

- S. P. Jain, Some considerations in Family Planning Targets Setting. Demographic Training and Research Center, Bombay. (Now in Department of Family Planning, Government of India, Ministry of Health and Family Planning).
- R. S. Kurup and R. Ramalingam, Family Planning Targets for reduction of birth rate in India. Demographic Research Center, Bureau of Economics and Statistics, Trivandrum.
- D. V. R. Murty, Targets for Family Planning Program, Central Bureau of Health Intelligence, Directorate General of Health Services, New Delhi. (Now Assistant Director in Central Family Planning Institute.)
- M. V. Raman, A critique of some of the Targets for IUCD and Sterilization, Demographic Unit, Indian Statistical Institute, Calcutta.
- Kumudini Dandekar, Possible Targets and their attainment in the field of Family Planning in Poona District. Gokhale Institute of Politics and Economics, Poona.
- V. C. Chidambaram, Targets Setting in Family Planning Program, Demographic Training and Research Center, Bombay, (published in Family Planning News, October 1966).

Since then, several more elaborate formulae have been developed by, among others, the DTRC staff, Dr. A. George of the University of Kerala, and the Central Family Planning Institute:

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| <p>S. N. Agarwala and
J. J. Maslowski
(USAID Demographer),</p> | <p><u>How Are We Doing in Family Planning,</u>
DTRC, February 1968.</p> |
| <p>Dr. (Miss) A. George
Professor of Statistics,</p> | <p><u>Impact of Sterilization and Contra-</u>
<u>ception on Fertility,</u> University of
Kerala, March 1968.</p> |
| <p>D. V. R. Murty and
P. S. Mahopatra,</p> | <p><u>Targets for Family Planning Programme,</u>
Central Family Planning Institute,
March 1968.</p> |

In late May 1968, Dr. Stolnitz returned to New Delhi at the request of USAID to make an independent evaluation of the same subject, specifically to develop a comprehensive methodology and alternate estimates about the possible contributions to reduced fertility. Coincidentally, the Joint Secretary in the Ministry, Mr. K. N. Srivastava, was also seeking an independent demographic evaluation of its projections, and at a meeting in early June, personally requested Dr. Stolnitz to undertake such an assessment. He explained that he had at least "half a dozen" sets of estimates prepared by various experts but found it difficult if not impossible, to determine why the results were so varying. The specific request was to provide an assessment which could project the results which could be anticipated if a program of the size and character as that encompassed in the Fourth and Fifth Prospective Plan were carried out. He asked for results expressed as births prevented each year, annual birth, death and growth rates and a clear identification of the methods and assumptions on which these estimates were based. Dr. Stolnitz was provided with the per thousand targets the GOI planned to achieve (Cols. 5, 6, 7 in Table on p. 160) but no additional data.

Dr. Stolnitz's approach was to provide, not an assessment, but a method by which an assessment was possible, and which would serve to identify the differing assumptions built into other available estimates. His efforts have resulted in the development of a detailed, but comparatively simple, illustrative method which can be applied retrospectively or prospectively to any base - one clinic

or an all India program - and which can easily be adapted to any alternate set of assumptions. (For example, it has already been applied to the Rohtak follow-up study of 824 cases to determine the impact on fertility.) Using GOI official population estimates projected on the basis of the Expert Committee's low fertility assumptions, the total female population above the age of 15 was subdivided in five year brackets. The proportion of currently married women was calculated, and a joint survival rate applied to obtain the number of fertile couples remaining at risk. The GOI targets were converted into total numbers of couples estimated to be contracepting each year by each method and by age.

Two basic sub-series were developed from the primary tables. The first series indicates the relatively greatest reduction in birth rate which could be expected - on the basis of a highly favorable combination of assumptions all of which would enhance such reductions. The age distribution for the youngest group of wives in any vasectomy and IUD samples, known so far, was used. High loop retention rates and other favorable assumptions were applied. In contrast, the second series showing the less favorable projections, used rural IUD and vasectomy age distributions, lower IUD retention and other less favorable assumptions.

Each year's group of acceptors was aged or dropped out according to her presumed actual age, marital and contracepted status. The birth rate and the birth preventions were calculated by applying age specific fertility rates to both contraceptors and non-contraceptors.

The method is time-consuming, but simple to understand and apply and is adaptable to any situation or set of assumptions. Probably its major contribution to a more precise assessment is the fact that each woman is treated as an individual of a specific age and fertility status; hence full credit can be given for the larger numbers of births averted for the youngest contraceptors.

Naturally, no assessment can be any better than the accuracy of its assumptions. Unless the GOI can be assured that its field reports are reasonably accurate, as to current age-specific fertility and mortality rates for the general population, and age, parity, numbers and continuation rates for the contraceptive acceptors, neither this nor any other method can reliably assess the programs effectiveness.

It is an interesting anomaly that the all-out effort and pressure which dictates the setting of annual IUD and Sterilization targets and their allocations to States and the district, Block and subcenter level may encourage a less accurate qualitative reporting of results, which in turn would tend to discourage regular realistic reassessment of the targets themselves, or their effect on the program worker in the field.

Certainly accurate program reporting is in itself an indispensable input to successful program development and it may be timely to consider adding some other kinds of program targets, as additional ways of measuring progress toward the goal.

While ultimately the program's demographic effect depends on the numbers actually successfully practising contraception, the intermediate steps to that achievement necessarily include

- * Reaching more people with information

- * Reaching more people with supplies and services

These steps, no less than the number of couples to be inserted with loops or sterilized, can be converted into annual targets and quantified:

- * The number of couples to be reached with more information

* The volume of contraceptive supplies and services distributed.

The increased extension of knowledge and increased availability of supplies and services alone are vital elements in an expanding program and are valid and reportable measures of progress and success.

XIII. THE GOI PROGRAM: POTENTIAL FOR FUTURE PROGRESS

A major objective in the development of this Annex has been to try to view both the problem and the GOI program with some degree of perspective. Some of the items of general information which have been introduced into that perspective and which have particular relevance for any attempt at assessing the GOI potential for further progress are the following:

- * More than two thirds of India's contraceptive program has occurred since April 1966. This is also the date the new Department of Family Planning was set up as a separate entity within the Ministry of Health.
- * No one really knows what the birth rate or death rate or growth rate is, or even how large the total population is now. For convenience, the GOI Expert Committee medium projections of 41 births per thousand and 17 deaths per thousand for 1961-66 has been accepted as a starting point and working assumption.
- * Despite the fact that abortions are technically illegal, it may be that as many as 4 million, most of them by primitive village methods, take place every year. Thus, whatever the birth rate really is, it could be higher by about 8 more births per thousand were it not for abortions.
- * To get the birth rate down to 22 per thousand, all Indian couples (or the averaged equivalent) would have to be willing and able to limit their families to three live births. The number who have had three or more live births currently amount to about 47 million couples, or about half of the women in the reproductive ages. To take care of backlog, the program would have to build up to a point at which about 90 per thousand effectively practise contraception for the purpose of not having any more children.

- * However, once all this backlog is taken care of, the annual rate would need only be enough to take care of "new entrants," that is the couples each year who have their third live birth, or about 3.5 to 4 million (7 to 8 per thousand.)
- * The estimated number of effectively contracepted couples is now about 5 million, or a little more than ten percent of the couples who already have had three or more live births.
- * Deaths of infants and children under the age of 5 are claimed to account for 40 per cent of all deaths.

Several attempts have been made to assess the demographic impact of GOI programs to date: DTRC has estimated that 1.3 million births were "saved" in 1967 due to contraceptive programs up to that time. ^{1/} Dr. Rosa has estimated that 3.1 million births will eventually be prevented from contraceptive procedures adopted in IFY 1967-68 alone. ^{2/}

Any such retrospective assessment is subject to two major uncertainties: First, we do not know to what extent the acceptors represent shifts from, say, condoms or abortions to IUD's or sterilizations. If the abortion estimate is at all accurate, there is a large volume of substitute contraception each year which can be swallowed up without any demographic effect at all. Second, we do not know with any degree of reliability the parity status of the present volume of contraceptors, particularly of those sterilized. The median numbers of live births reported in the several vasectomy case studies available are close to the average reported for all of India without reference

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1. DTRC, Chembur, "How are we doing in Family Planning," op. cit., p. 8
 2. Dr. Franz Rosa, "India Begins to Dent It's Birth Rate: Achievement and Potential for the Indian Family Planning Programme," in Participant Journal, published by USAID/India, New Delhi, May 1968. Reprints separately issued.

to any special contraceptive status -- i. e., about 4.4 living children with 6.5 to 7 live births representing previous completed fertility.

However, if as might be considered logical, the volume of acceptance to date does represent couples with a larger number of children earlier in their lives who might also become part of the fraction (8.7 percent) of the women still in the reproductive age group who have 7 and more live births, then the program will have some demographic effect. At least the birth rate will not be as large as it might otherwise have been.

While these uncertainties will continue to plague any prospective assessments until more accurate data is available, it is still possible, even accepting these problems as limits to reliability, to make some general approximations. During the past year, USAID has explored several approaches to program assessment, which results are summarized below. One is based on potential achievement as demonstrated in the best programs to date. A second applies the methodology developed by Dr. Stolnitz, and a third is an adaptation of Dr. Gopaldaswami's approach within the probable acceptance limits imposed by the high incidence of child mortality.

1. Potential Achievement as Demonstrated in the Best Programs

The following assessment was developed by the outgoing Chief of the USAID Health and Family Planning Division, Dr. Franz Rosa, and represents a very broadly calculated pragmatic estimate, namely to project potential achievement on the basis of what has been accomplished in the best state or in neighboring Pakistan.^{3/} The two obvious deficiencies in this projection are that (a) other states may never be able to perform as well as the best state, and (b) the best state may be able to perform better in the future. To some extent, these deficiencies tend to counter-balance each other, and this approach can serve as an interim check on the conclusions reached by other more elaborate prediction approaches.

3/ Ibid.

According to Dr. Rosa's calculations, potential achievement derived from extension to the country as a whole of levels of performance so far demonstrated in the best areas would yield a performance rate somewhat on the order of the levels shown in the following table: ^{4/}

<u>Contracepted Couples</u>	<u>Best Performance</u>	<u>Cumulative Rate per 1000 pop.</u>
Sterilization	Madras State (1/68)	12.8
IUDS in Place	Punjab State (2/68)	12.1
Conventional Contraceptives	Pakistan (12/67)	12.0

These rates cannot be totalled since the prevalence of the use of one method partially excludes the use of other methods. However, discounting 30 percent for overlap, it appears that with the best use of all methods demonstrated so far, about 25 couples per 1000 population would be contracepted. A contraception rate of 25 per 1000 translates to an average annual birth prevention rate of about 7 per 1000, dividing by 3.5 for the natural spacing. Assuming the starting birth rate as 41, a 7 point reduction would indicate that a birth rate of 34 would be achievable with the presently available tools in the present setting.

By another calculation approach, if the equivalent of 25 percent of the number of couples with 3 or more live births can be effectively contracepted, it would be possible to achieve 25 percent of the target of lowering the birth rate from 41 to 22, arriving at a birth rate of about 36. (The actual figure would depend on the fertility of the couples contracepted.)

^{4/} The cumulative rate per thousand has been adjusted as follows: The number sterilized has been reduced by 25 percent to allow for aging. IUDs in place estimated at 50 percent of total insertions. Conventional contraceptive users are roughly estimated as the annual distribution of contraceptives divided by 120.

2. Potential as Measured by the Possibility of Successful Achievement of the Fourth and Fifth Plan Targets.

The prospects for success -- as measured in terms of impact on the birth rate -- of the Perspective Plan will obviously depend primarily on the volume of the acceptors which can be expected to present themselves, their parity status at the time, and, in the case of IUD's and condoms, their continued retention or effective use.

As noted above, there does not appear to be any logistic reason why the projected numbers of couples could not be reached with contraceptive services of some kind within this time period. Whether they will be accepted and whether initial acceptors of reversible methods will continue depends on many variables. However, the experience in India as well as many other countries, developed as well as developing, suggests that very little improvement in IUD continuation rates can be expected without a very great deal more personal, individual, on-site followup of the IUD acceptor, and even this by no means will insure any great improvement in retention rates. PRAI studies fairly convincingly document the current Indian program experience to the effect that it is unlikely that any IUD's will be found in place after five years. Similarly, condom experience in India, so far at least, does not encourage the conclusion that more than 40 percent of any large volume of new users will be willing or able to use them regularly with full contraceptive effectiveness.

Dr. Stolnitz's illustrative study^{5/} presents what he considers to be two relative extremes. He starts with the assumption that the 1968/69 to 1978/79 target numbers involved will be met, since this was the request made to him by the GOI. All the more favorable assumptions on age, retention rates, husband-wife age differential, etc., have been incorporated in

^{5/} The study is not yet completed. Information below was derived from base tables and work sheets.

his illustrative High Birth Prevention exercise. Similarly, all the less favorable ones have been applied to the Low Birth Prevention exercise.

However, a general look at the substance of these low assumptions, as related to Indian case history experience available to date, suggests that, far from being a pessimistic extreme, the illustrative Low Birth Prevention assumptions could be considered to represent a fairly realistic set of assumptions, as applied to all rural India and would represent a major logistic accomplishment just in numbers of acceptors if actually achieved.

The age distribution for wives of vasectomized men is that found in the Gandhigram 1965-66 follow-up study, one of only three rural studies available to the Mission. While the group is older than that reported in most of the urban studies, it is by no means the lowest age distribution reported and 27 percent of the wives of the sterilized men are under the age of 30. The distribution by age of wife for IUD's and condoms used is that found in the 1967 follow-up study of IUD's done in Karnal District in Haryana State. The particular Blocks from which the follow-up sample was taken had loop programs much more popular than in the rest of India (about 10 per thousand a year, for two years -- compare this with the 9 per thousand aimed at in the Plan by 1978/79). Furthermore, most of the insertions were done by a resident lady doctor, and there was more than average select nursing or other service staff available for motivational follow-up and counseling. The age distribution may be considered reasonably representative of what might be expected from the wide expansion into rural areas reflected in the target figures. In the Karnal IUD sample, 30 percent of the women were under 30.

The retention rates used are approximately the actuals reported for Karnal and other Indian rural areas.

It should be emphasized again that the Stolnitz study is not intended to be a substantive assessment of probabilities, but to illustrate a method of making a substantive assessment.

This interim use of his illustrative low birth prevention exercise as a substantive projection is not intended to represent more than another very general way of looking at possibilities.

The general assumptions are only projections, they are not predictions. The most important of them are these:

- * If the Karnal and Gandhigram age distribution is repeated in the age acceptance pattern during the Plans, and
- * If all the couples reached become initial acceptors -- that is, about 52 million sterilizations, 40 million loops inserted, and the equivalent of 11 million men trying to use condoms regularly --

This could result in

- * Some 68 percent of all the married couples aged 25 to 44 being active practisers in 1978; and
- * The birth rate might drop to 32 per thousand by 1978. Combined with a death rate that might drop to 10 per thousand, the growth rate would be about 2.2 percent per year.

3. An Alternate Assessment based on the Parity Status of Potential Acceptors.

Even without waiting for the kind of refinement called for by the Stolnitz method, the simple birth-order calculation developed as early as 1951 by R.A. Gopaldaswami still serves as a short cut evaluation tool to set both the problem and potential in its broadest perspective.

The birth rate in any given year is made up of orders of birth. The totals represent first, second, third, fourth, fifth and more live births born to a given collection of wives in that year. If infant mortality remains high (even though the total death

rate may drop to 10 -- an assumption which USAID seriously questions and hopes to examine more closely as soon as additional staff is available) it is not really logical to expect rural husbands in large numbers to resort to sterilizations before a fifth live birth. It is still the case in village India, that, on the average, a fifth baby will be born into a family in which only two or three children are still alive.

On the assumption that the probable current upper limit for effectively practising contraceptors will be the equivalent of families with five or more live births, about 25 percent of all the fertile married couples (or about 27 million by 1978/79) might be expected to be willing vasectomy acceptors or otherwise successfully practise reversible methods. (Some 27 million more, by then out of the fertile group might also be added to the total who could be reached in ten years, but would not have any net demographic effect.)^{6/}

If this occurs, the demographic effect would be to bring the birth rate down to about 32 per thousand.

4. An Additional Observation.

These assessment efforts and the uncertainty of the base figures from which each of them must start reinforces the Mission's conviction that to speculate on the merits of achievement and the potential for more achievement in relation to an arbitrarily established target has only limited value even as a program device. The lack of achievement in relation to the GOI's own targets can be due either to errors in the record, to lack of reality in setting the target, to deficiencies in the effectiveness or acceptability of the contraceptive technology currently available.

Certainly the reported very rapid expansion of the program and the rapidly increasing volume of vasectomy acceptors can be the basis for confidence that further marked

^{6/} See Tables in Chapter I

progress can be expected. Leadership, in the States and in the Center, does appear to have a great deal to do with the major thrusts forward.

It should not be forgotten that two thirds of India's contraceptive program has been accomplished since April 1966. Despite the fact that the program results are necessarily the sum of the sections in the individual states, the new Department of Family Planning and its key staff members brought a new dimension of priority, imagination and drive into the program, used the resources and influence of the Center to mount such innovations as the national Family Planning Fortnights, offset the shortage of manpower by creating District mobile sterilization and IUD staffs and programs. The crash orientation and training program which reached several thousand doctors, over 2000 of them in the past year, plus 122,000 family planning and other community workers, was adopted as an interim measure while regular training curricula and facilities are being strengthened and deployed more effectively.

There is no reason to believe that either the drive or the capacity for practical and creative innovation has reached its limits. Substantial additional expansion is therefore to be expected.

Irrespective of the numbers involved or even of the use up to now of targets as a prod to additional effort -- it is the Mission's view that every family is a target and every couple contracepted is an achievement.

We share with the GOI a common goal: Whatever the targets and whatever the actual birthrate now, we intend to use and seek out every available immediate means to assist the GOI as it brings that rate down as far as it can and as fast as is humanly possible.

APPENDIX A

CONDOM COMMERCIAL DISTRIBUTION SCHEME

Although condoms are generally the most widely used of conventional contraceptive methods, it is estimated that total Indian consumption during the year ending in March, 1968, was only 42,000,000 pieces, representing full utilization by 600,000 users - slightly more than 1 user per 1,000 population.

To increase the use of condoms, three distribution methods have been considered: 1) free distribution through hospitals, clinics, public health and family planning centers; 2) through depot holders -- midwives, postman and others -- at a very low subsidized price; and 3) the commercial scheme through 600,000 retail outlets at a subsidized price.

All three methods have had some testing and evaluation. A free distribution program is functioning, a depot holder plan is under study. The first big push will be the commercial scheme.

A. Background

The plan for condom distribution through use of existing national private commercial sales and distribution networks stemmed from a study made in 1964 at the Indian Institute of Management at Calcutta reported through the Ford Foundation. A pilot project was initiated at Meerut, U.P., by the Central Family Planning Institute involving a local distributor selling household supplies, including condoms, to small shopkeepers. This distributor was given a supply of specially packaged condoms without cost to sell to consumers at 3 for 15 paise, the retailer retaining 20 per cent of the sales price. Promotion was limited although identifying signs were placed on outside of each shop. In the initial year of this project and with inadequate supplies provided, condom distribution was 300 -- 400 gross per month through some 700 "tea and match box" retailers -- a substantial increase over former sales of 100 gross per month through about 100 retail outlets, mainly chemists. The Meerut trial may not be representative of the sales potentials in other parts of rural India where different social mores may be encountered.

The new cooperating companies and one private advertising agency (J Walter Thompson) have conducted a few private trials and have pledged their cooperation.

This scheme will distribute condoms through a marketing operation that will be accompanied by a massive promotional campaign using all available advertising media translated in all of the regional languages. Sales of condoms will be at low price, 3 for 15 paise, with the retailers retaining a normal profit of 3 paise (20 per cent), the distributing companies 4 paise for their costs of distribution, and the balance of 8 paise returned to a government marketing organization to help defray the cost of promotion. The condoms will be provided without charge to the program through a government owned corporation, Hindustan Latex Ltd. (HLL). Direction and coordination of the commercial distribution scheme will be a marketing organization, being established within the Ministry of Health and Family Planning.

B. Projective Objectives

The objective of the project is to maximize the users and to improve the effectiveness of condom use to insure a significant impact on India's birth rate. The GOI Fourth and Fifth Perspective Plan (see Chapter XIII above) anticipates potential users at the rate of 18 per thousand by 1978-79. The Arthur D. Little marketing design supports this projection.

C. Progress to Date

The commercial distribution plan for marketing condoms in India requires a highly coordinated organization with a staff of professionals having experience in management, advertising/promotion, market research and other analytical skills. The structure of the organization with a description of its components and their function has been suggested and developed by a consultant team from Arthur D. Little, Inc., provided by the Ford Foundation.

The marketing organization is to be headed by a Chief Executive with executive managers for each of three divisions: marketing operation, advertising/promotion and marketing research. The marketing organization will provide the essential marketing research, promotional and management skills and techniques not now present within the government. The chief executive will report and be responsible to the Executive Board of the Ministry.

The GOI has taken the first concrete step necessary to establish the organization, by appointment of a marketing executive officer, Mr. D.R. Gupta, formerly of Sandoz Pharmaceutical Company. Even though the organization will not be complete, the scheme is scheduled to start in October. Each of the six cooperating companies is making preparations to establish distribution centers, orient its

sale staff and deliver point of sale material and stocks of supplies for retail sales to begin during October 1968. The first three months of selling operations in a limited number of districts will be considered as the market test quarter. The results of the test quarter will be quickly fed back to the companies and thence to the marketing organization which hopefully will be organized and functioning by that time. The results of the test quarter will provide crucial information on product acceptability, advertising effectiveness and logistics of supply.

The private firms that have agreed to participate in the commercial distribution programs are: Brooke Bond, Lipton Tea Co., Hindustan Lever, Union Carbide, Western India Match Co., Imperial Tobacco, Ltd., and Tata Oil Co. They have held frequent meetings with Department of Family Planning officials and have actively participated in developing plans for the implementation of the program. They have agreed upon the territories within the country to be assigned to each firm and have made their advertising agencies available for consultation regarding promotion and advertising efforts.

Plans for advertising and promotion are proceeding under the temporary direction of the Executive Board. Approximately 14 pieces of advertising material have been decided upon and these will be translated and reproduced in 12 regional language to start. They consist of posters, newspaper advertisements, instructional leaflets, point of sale and display materials and a metal sign identifying the retail shops as condom sales centers for family planning.

Not yet having a market organization with a competent advertising manager has retarded the development and approval of a coordinated national advertising campaign. When difficulties were encountered in getting clear-cut decisions from the Executive Board for the introductory campaign, the cooperating companies collaboratively agreed to underwrite and pay for the cost of the designs produced by a private advertising agency. Printing, procurement of newspaper space and other implementation actions will be by the government Directorate of Advertising and Visual Publicity (DAVP) with costs paid by authority of the Executive Board.

When the Marketing Organization is complete, it will have an advertising manager and a staff to direct, coordinate and monitor promotional activities. The advertising division will develop and initiate new approaches, test their effectiveness and the subtle social and behavioral differences in different parts of the country requiring appropriate changes in promotional approaches.

While responsibility for coordination is assumed by the division of market research, it is expected that information feeding back from the field to all divisions and sections will be made available for the purposes of the entire organization.

The Hindustan Latex Ltd. (HLL), a public corporation for procurement and production of condoms now exists. A plant is under construction at Trivandrum with annual capacity beginning January 1969 of 144 million pieces and plans are under way to first double and later quadruple that output. At least 160 million can be depended upon from that source up to the end of March 1970. Other private indigenous production will account for another 100 million during the same period. Agreements have been signed or are to be signed for import of more than 550 million condoms for all programs to be delivered before the end of GOI FY 1969/70. The total foreseeable supply should be in excess of 800 million up to the end of March 1970.

USAID has issued PIO/Cs for 170 million packaged condoms and for condom wrapping machines to be used by Hindustan Latex Ltd. in wrapping imported bulk condoms.

The executive Board has approved the use of 104(H) rupees to support the costs of the advertising and promotional campaign for the commercial distribution system.

D. Assessment and Evaluation

The Mission's role in the condom commercial distribution scheme is basically that of principal supplier. USAID enthusiastically supports the government/private sector linkage that is being developed although the concept originated with the Ford Foundation which continues to be involved with a full time technician. The appointment of the marketing executive provides, hopefully, the opportunity to the USAID technician for a much closer working relationship.

This project has been annoyingly slow in getting off the ground. Last November we were told that a start would be made in January 1968, and that prediction was followed by a series which proved to be equally speculative and incorrect. The October starting date seems possible. Delays have been the result, on the one hand, of a ready GOI optimism and, on the other hand, a recurrent realization that the job was bigger and more complex than was realized. Inasmuch as this led finally to Ford Foundation's bringing over the Arthur D. Little team, the delays will probably prove to have been constructive. Had this project started without the rationality of

the Arthur D. Little marketing proposals it could easily have been a shambles. If the scheme succeeds, it can have far reaching effects for the good of F.P. throughout the world. If it fails, the basic design of government/private sector interrelationship will have been set back in India and in those countries that otherwise would have been influenced by the novel development.

It is not possible now to estimate the success of the scheme. Indeed, because of the limited staff at the Center we are fearful that the necessary foundation for an optimum program will not be well constructed. Nevertheless, with the urgent need to win as many Indians as fast as possible to the use of contraceptives, and with the intense interest on the part of the Indian Government in this particular scheme, our involvement as major supplier is justified.

For FY 70, many intervening uncertainties cloud the outlook. While the plan is big and bold it is, nevertheless, experimental and deliberately designed to develop information for future planning and development. If the take-off leads to rapid acceleration of condom use the demand for supplies could reach several hundred million per year. At the same time, good market acceptance would be a plus item in the projected study of the feasibility of a new condom factory with USAID support (loan).

Also unknown at this time are the probable inputs from other sources. The Swedish International Development Agency (SIDA) recently agreed to provide 144 million condoms with deliveries expected to commence this fall at the rate of 10-12 million per month. It is possible that SIDA will extend this grant through 1970. Projections of AID involvement in the commercial distribution scheme for FY 70 would be sheer speculation. By the end of calendar 1968, however, useful estimates should be possible.

APPENDIX B

ORAL CONTRACEPTIVES

The Indian Government has shown little enthusiasm so far for incorporating oral contraceptives into its nationally sponsored family planning program, particularly since results from early clinic tests were discouraging. However, with USAID financial and some advisory technical assistance, in mid-1967 the GOI decided to engage in a national pilot test of the acceptability and use effectiveness of oral contraceptives, primarily as an alternate for women unable to retain IUDs.

The following sections describe the background, the initial objectives, the method of approach and the progress to date since the project was begun.

A. Background

In December 1966, after several years of clinical trial, beginning in 1964, an advisory committee of the Indian Council of Medical Research (ICMR) recommended approval of the importation and private sale of oral progestens as contraceptives, but recommended against introduction of the method into the national program until further investigations were completed. The response experienced during the early 1964-66 trials was not encouraging: Out of 4,284 women offered pills, 1,063 actually received them and only 513 used them for a varying number of cycles. While the study itself had some weaknesses, nevertheless the urban clinical conditions under which the method was tried were probably more favorable to assure use of oral contraceptives than would be the case in the country at large. In April 1967, the ICMR officially approved the sub-committee's recommendations and thereafter undertook to develop plans for a more extensive pilot program, designed to test acceptability and use effectiveness, in order to identify what if any role the method may have in the national program. Under a project agreement signed November 15, 1967, USAID is financing the imported pills and assisting in training and evaluation.

B. Initial Project Objectives and Study Design

The GOI elected to explore the use of orals as a supplement to the IUD program, for highly motivated women who were unable to use the loop. The decision was made at a time when the IUD insertion was declining and rumors adverse to the use of IUD were growing. Consideration of a more extended use of orals would depend upon a cost benefit analysis.

A study design was agreed upon; each state was asked to recommend family planning centers for the project to be selected from samples of Primary Health Centers, Urban Family Planning Centers, District Hospitals, Family Planning Training Centers, and Medical Colleges. Each Center was required to have full complement of staff in place, including a lady doctor.

Training teams of medical and paramedical staff was undertaken in one week courses at the Regional Family Planning Training Centers of Chandigarh, Lucknow, New Delhi, Bombay, Calcutta and Madras, following a prescribed syllabus of motivational, endocrinological, methodological and evaluational areas of oral contraceptives. It should be emphasized that most Indian physicians have limited experience in the use of hormone therapy and no experience in oral contraceptives. Training not only provides an introduction to this new technique which has been beyond the practise of the medical profession of India, but provides an experience which is basic to the future use of hormonal contraceptives in any GOI family planning program.

Oral contraceptive records have been provided for each individual case to precode data for the assessment both of demographic impact and of clinical effect of this oral program. The originals of these case records, together with the monthly reports are sent directly from the participating clinic to the

Delhi Ministry. Prompt tabulations are to be done with return summaries to the clinics, the State Family Planning Officer, and the Regional Family Planning Directors. Each center will provide acceptance ratios based on several denominators, including the base population of the area served and the proportion of patients requesting contraceptives that accept orals. Continuation rates can be calculated on a life-table basis of patients who accept orals.

A sub-sample study is to be designed by CFPI to evaluate those factors of the clinics that contribute to or detract from the success of the oral contraceptive program, such a study to be initiated several months after the beginning of the program. A third study might be undertaken by the Evaluation Section of the Planning Commission, the official agency to assess functioning efficiency of a government agency's program, in this case, the efficiency of the family planning program in the center where orals are being introduced.

Planning estimates directed each center to include 1,000 patients from their block based population of 100,000. A full complement of 100 study areas would provide 100,000 patients as an adequate sample to assess acceptability from a known population and provide experience directly to approximately 200 physicians.

C. Progress To Date

The initial selection of 120 centers was made by the Department of Family Planning from those recommended by the State Family Planning Officers (without consulting the physicians of each clinic) and their staffs were trained at the designated sites. Each clinic was advised to take up approximately 15 to 20 patients with the initial limited supply of pills. However, demand from the States and certain voluntary organizations resulted in an agreement to expand the approved clinics from 120 to 500, 300 of which had been approved by June 1968.

1. Training

In July 1967, Punjab State began pre-testing the syllabus for training and the recommended methodology to be followed in the selection and follow-up of patients. In September of 1967, the Regional Family Planning Training Centers were visited by the Ministry staff and USAID consultants regarding the training programs, and by June 1968, the medical and paramedical staffs of 130 clinics had been trained and equipped with the necessary pills and records for this oral contraceptive program.

Progress of the program in training thus far has been numerically adequate. The staff of the original 120 selected centers have been trained and the Regional Training Centers can complete the training of staffs for the full number of 500 in another 18 months. Steps are underway to inaugurate State Family Planning Centers as additional bases for oral contraceptive training. The difficulty over supplies in April, May and June 1968 resulted in orders from the Commissioner's office to stop the training programs until the intended supplies begin. On assurance that 50,000 cycles would be available July 1, these orders were rescinded.

2. Supply and Distribution of Commodities

Initial pill supply was partially a gift and partially a purchase of Ovulen in a 28 day cycle. The Department of Family Planning specified a tablet of 1 mg. progestogen for a 21 day cycle supplemented by 7 days of an iron tablet to make a 28 packet. A special design of the packet was requested but the GOI agreed to accept an initial 30,000 cycle priming supply in the existing U.S. rectangular packaging to inaugurate the clinics trained between January and June 1968.

Commodities provided thus far, Ovulen 28's, have furnished each project with a beginning supply of 250 cycles and refills to long standing centers. The 130 centers have been

supplied with 250 cycles totalling 32,500. The State of Punjab has used approximately 1500 cycles thus far in its testing. Thus 34,000 cycles have been so distributed and much of the reserve 6,000 cycles of the original stock are being used for maintaining the reserves of individual projects. As the additional 50 centers are prepared in June and July, another 7,500 will be required; these 180 centers will utilize a maximum of 50 cycles per center in the next 4 months and will require 36,000 cycles to maintain the minimum reserves. Training is scheduled for another 60 centers from July to October thus obligating 15,000 cycles. To enable this continued growth of the program despite the delay in the final purchase of pills, an interim order of 50,000 cycles is arranged as a first segment of the total commodities to be provided by AID. As the GOI refused to pay rupees for air freight on this interim supply, AID/Washington agreed to assume this cost.

The imminent arrival of this large order for distribution is forcing the establishment of necessary machinery in the Medical Stores Depot (M.S.D.) of the Ministry. Placement of staff, printing of indent forms, and confirmation of procedures for ordering and delivery of this supply are being finalized in order to remove all possible administrative obstacles for the rapid supply to centers. These necessary steps will tie in with the reporting system being activated. A proposal by the GOI that the supplies be furnished directly to the participating centers by the M.S.D. with information copy to the State Family Planning Officer is a new attempt to remove the delay of processing through the State office.

In preliminary consideration of an oral contraceptive program, the GOI emphasized the cost and the non-availability of pills from the local pharmaceutical industry. Although cost is being reduced by the orders for this large scale study, and the likelihood of future local production is partially dependent

upon the Cooley Loan being considered for Searle, assurance of a cheap domestic supply in the near future has not yet been attained. Other pharmaceutical companies should be encouraged in this development; Wyeth hopes to have indigenous production by August 1969.

3. Records and Reporting System

A first tabulation of case records was undertaken on March 30, 1968. Approximately 500 records from the official government programs had been received from 30 of the 60 functioning clinics. The Ministry evaluation center referred the actual tabulation to the Central Family Planning Institute according to the schedule. As the CFPI, for technical reasons, could not make the tabulation at that time, they were done at the I. I. T. in Kanpur. A brief analysis of the tabulation was mailed out and a second tabulation for monthly feed-back was begun on May 30, 1968 at the C. F. P. I. However, staffing in the Ministry Evaluation Cell has not been completed for prompt processing of the records nor for adequate coordination of reports and supplies.

The study of acceptance and use-effectiveness for Indian women was intended to be based on 100,000 women who would be followed for 12 months. During the 6 month period of January - June 1968, while general program implementation has progressed well, the uptake of patients has not yet averaged 50 per clinic. As of June 1968, the total was estimated to be about 2,000, but as of July 31, the total had increased to 3,000. When the 300 approved clinics reaches this level and 15,000 patients are under observation, an expansion to 1,000 clinics, hopefully to carry 100 patients each, must be attempted. This will not be considered by the GOI until the end of 1968.

D. USAID Assessment and Evaluation

1. Assessment of Present Project

Phasing into full time program must await established acceptance by both physicians and patients, which may be demonstrable by the end of 1969, and an established system of reporting and distribution. The reporting system being developed for orals will provide progressive as well as cumulative data on the acceptance rate and level of pills. This is in contrast to the loop program, for example, where the continuation rate is unknown.

In addition to these critical items of (a) supply (present availability from overseas and future domestic sources and an effective distribution system); (b) a reporting system that is reliable and functions; and (c) coordination of utilization and supply, the finalization of the sub-sample study needs to be accomplished by October 1968. The formal date of the beginning of this program should be that of the arrival of the first shipment of the commodities, the 50,000 cycles to come by air in July. Between that date and the arrival of the surface shipment, the sub-sampling studies for additional factors of staff and clinic which affect success should be established.

Thus an adequate study may not be reportable until the end of 1969. If trends of acceptance are favorable, movement towards integration of orals into a permanent program could begin in the latter half of 1969 and be accomplished in 1970. Modification will arise as better techniques become established and as experience with exogenous hormones becomes more wide-spread in India.

Some program supplement should be devised to increase participation in the oral contraceptive program.

Money is a touchstone as evidenced by the incentives to motivators, patients and doctors in the sterilization and IUD programs. The orals have none of that incentive. An excellent alternative would be the use of workshops of one-week duration, held at regional hill stations for the medical and paramedical staff of those projects having a high continuation rate. This could be developed at 6 months and 12 months intervals after the initiation of the program.

2. Need for Research on other Hormonal Approaches and for Involvement of Indian Medical Community on a larger scale.

Research in parallel of other hormonal approaches should be constantly nurtured so as to feed a better pill into this ^{the} methodology at the earliest possible date. The 28-day pattern of continued therapy was selected because of the easy transfer into the minidose of a progestagen, should that prove preferable. Studies in India are underway on minidoses and may enable a decision by the ICMR in January 1969. No study is yet underway on a one-a-month pill in India. The obvious association of this with the moon or with menstruation deserves study here. One study in progress in Allahabad for the use of pills phased with the moon has a continuation rate of 68 per cent at 6 months. This is being carried out through auxiliary nurse midwives in villages who have made daily visits to the women in their village. There is evidence that as the ANM's accumulated experience with the pill, their patients continuation rate more nearly approximates 90 per cent at 5 months. The reports from Thailand on the effectiveness and high continuation rates of the injectables were very appealing to the Department of Family Planning, but until their reversibility is better demonstrated these may have no role in the GOI program for spacing.

Institutions with capable staff and adequate facilities for research in reproductive physiology and fertility controls are almost non-existent in India. Those few are maintained via

GOI grants supplemented with Ford Foundation and small scale AID assistance for needed foreign exchange purchases and overseas training. The intensive research for a new contraceptive technique had better be done in the USA. Appropriate action is to make continually available for field trials in India the newer techniques as they are ready.

The greatest obstruction to an expanding program of this type is the inexperience of the Indian Medical profession with hormonal therapy. The provision of a quantity of orals to medical colleges is included as part of the present program, but the provision and testing of a variety of hormonal approaches has not yet been explored. Until the profession becomes saturated with the hormonal approach, their distribution will be the epitome of caution.

Additional manpower for family planning has been proposed through the utilization of the Indian Medical Association, but this is not as yet accepted by the GOI. A much bolder and larger area for exploration is through the Homeopathic and Ayurvedic physicians manpower with their 400,000 membership. The GOI demonstrated its interest in these groups by holding seminars with them, but thus far has not decided to put into their hands a tool of demonstrated effectiveness such as the orals. Studies to evaluate this manpower may be possible in some states if provision can be made for an adequate supply of an approved pill to selected individual practitioners and organizations of indigenous medical systems.

The primary role of USAID in hormonal contraceptives seems to be to enable physicians of all systems of medicine to become familiar -- to the point of intimacy -- with oral contraceptives, and that in a variety of forms. The provision of an unlimited supply of pills for the GOI study in Acceptance of Oral Contraceptives is but the initial step.

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ANNEX N
TECHNICAL COOPERATION LEVELS

Our Technical Assistance Program has been carefully tailored to fit the areas of consideration indicated in the body of the Program Memorandum. The program also follows very closely the priorities of the proposed Fourth Five-Year Plan. 1/

As our Agricultural, Family Planning, and Export programs are covered in other annexes, the rationale for these programs will not be repeated here. The Education strategy and program remain the same as in last year's Program Memorandum. 2/ This is also true of our Rural Development strategy and the program still to be developed upon this base. 3/

We have a small Labor program which we are attempting to recast. We hope to be able to concentrate primarily our attention upon labor matters that affect implementation of the Mission's overall strategy; e.g. India's ability to export, the transportation of foodgrains and fertilizers, collection and utilization of economic data, and the implementation of Title IX.

If our proposed Management projects are implemented in FY 1970, they too would focus upon the foreign exchange earnings and savings potential of the industrial sector. Our thinking in this field is also in the preliminary stages of development but would be derived from the Management projects submitted for approval last year.

Our Nutrition program can be called a developmental aspect of our agricultural undertakings. It is designed to increase the physical and mental capabilities of the next generation of the Indian work force. It is also attempting to impress upon Indian thinking the things that would be necessary to meet the demand for higher quality food as incomes go up. The program thus will make a contribution to increased productivity and the preventing of a new kind of agricultural crisis.

1/ See Approach to the Fourth Five-Year Plan - May 1968.

2/ See Program Memorandum FY-69 - India - dated August 1967.
"11. Education, pages 164-167."

3/ See Program Memorandum FY-69 - India - dated August 1967.
"13. Regional Development, pages 175-179."

Our small Malaria project exists to allow us to maintain pressure upon the Indian Malaria Program and provide minimal services in overcoming critical problems. We feel this to be necessary because of the re-emergence of malaria as a problem with a potential threat to health and therefore productivity, the condition that put us in this field in a large way in the first place.

In order to concentrate Mission efforts as AID/W has suggested, several projects will have been terminated by the end of FY-1969. They are:

1. Bombay CTI
2. Trade Union Development
3. Labor Ministry Training
4. Multi-purpose Secondary Education
5. Government Operations
6. Management Control Systems
7. Communicable Diseases

FY 1970 PROGRAM MEMORANDUM: ANNEX O

USAID/INDIA EVALUATION SCHEDULE 1968/1969

Part I - FY 1969 Evaluation Plan

The Mission's evaluation program for 1968/1969 includes:

- reviewing eight ongoing technical assistance projects or programs to assess (a) their effectiveness in achieving their targets; and (b) their significance in terms of Indian requirements and Mission objectives.
- developing an evaluative format for two relatively complex institution building projects. The aim is to identify the properties which characterize a fully matured institution of this type and -- with these as indices -- build an evaluative framework with which to measure future progress of the project. If these efforts are successful, the Mission will attempt to build similar evaluation formats for other projects.
- reviewing two terminating technical assistance projects to assess the effectiveness of the assisted institutions, their contribution to Indian development and, if possible, the contribution of US assistance to their growth.

Most of these activities are timed to mesh with the program cycle. We expect to complete them by next May so that the findings may be appropriately sifted and acted on before the next PM and Budget submissions. We are requesting outside assistance for three of the evaluations; the remainder will be conducted by the Mission.

A. Evaluations of Ongoing Activities

1. Agriculture:

(a) Agriculture Production Teams 386-11-130-366

Purpose: The fundamental responsibility of the

AP teams is to assist state governments identify and solve technical problems impeding agricultural growth. Problem solving runs from the initial step of problem identification, through research, to extension and education. The purpose of the evaluation is to determine where along this problem solving continuum each team and team member is investing his time and assess the effectiveness and relevance of this contribution. The evaluation will review team relationships with the state departments of agriculture and the agriculture universities and examine team staffing and recruitment. An attempt will also be made to establish an evaluation system (baseline data - reporting requirements, etc.) to measure the future progress of the project.

Method: Joint AID-GOI team to visit each state. In preparation, reports from each member on his actual workload will be submitted for 6-8 weeks before the team is constituted.

Timing: January 1969

(b) Agriculture Inputs Development

Purpose: Many activities of the Ag Inputs Division are of a "foot in the door" nature pilot programs attempting to open way for significant projects in fields such as pesticides, rodent control and farm machinery. Late in FY 1969, the Mission plans to take a systematic look at the division's activities to assess their effectiveness and prospects for the future.

Method: Mission review chaired by program office.

Timing: April-May 1969.

(c) Agriculture/Nutrition

Purpose: The strong prospects that India will overcome its foodgrain deficit brings another challenge more to the fore: nutrition, providing an adequate national diet. In the past two years, the Mission's nutrition division has sponsored a number of nutrition initiatives primarily in the area of food fortification and the development of supplemental foods. Some progress has been made in developing a short-term strategy for meeting the nutrition needs of children. But a comprehensive nutrition strategy, which delineates the relative priority to be given production of protective foods, animal husbandry and dairy products, and synthetic measures such as fortification, has yet to be articulated. The possible role of US assistance within such a strategy is undefined. The Mission intends to review current GOI, other donor and US programs in areas such as pulse improvement, animal husbandry, nutrition and nutrition education, to assess the need for expansion or refocusing of effort, and attempt to develop a basic nutrition strategy.

Method: As a first step the Mission plans to canvas the issues in a series of internal meetings and analyses, drawing as appropriate on staffs of the Ford and Rockefeller Foundations and visiting experts such as Dr. W. H. Sebrell, of the Columbia University Institute of Nutrition Sciences, who is scheduled to visit here in November. On the basis of these efforts, we will develop a tentative strategy and identify any subjects on which we need additional expert advice or intensive studies.

Timing: Beginning August 1968.

2. Family Planning

(a) Intensive and Selected Districts 386-11-540-332.8

Purpose: Both these projects are highly experimental.

They are the first in which USAID will be directly involved at the district level. The Mission plans to review the projects systematically in the late Spring 1969 to assess progress to date and determine the pattern for the future.

Method: Mission review led by the program office.

Timing: April 1969.

3. Health

(a) Malaria Eradication Program: 386-11-510-135

Purpose: Review of the program to identify reasons for failure to interrupt malaria transmission; evaluate adequacy of methods being taken to cope with the problem; examine administration of the program; recommend additional means which may be needed.

Method: Team from National Communicable Disease Center.

Timing: February through April 1969.

4. Title II

(a) School Feeding: If possible, study effects of school feeding on physical and mental development of children; attempt assess cost-benefits in terms of improved classroom performance, disease prevention, and reduction of burden on health facilities, etc.

Method: Five year study to be designed by Food and Nutrition Division. Expect to use Indian university or research institution; fund with 204 rupees. The Mission would appreciate copies of, and information on, any similar studies which have been conducted in other countries.

Timing: Study to begin in FY 1969.

- (b) Volagency Management: Assess management capabilities of volagencies to identify areas which may need strengthening and to provide a judgment as to their ability to expand their programs.

Method: Indian Consulting Agency: Kirloskar Consultants

Timing: July 1968 - 120 day study.

5. Education

Science Education Improvement: 386-11-660-226

A re-appraisal of the Science Education Improvement Project is now underway in connection with preparation of the new E-1. NSF is seeking means to fulfill its three main mandates:

- 1) Establish an institutional framework for coordinating science education improvement activities;
- 2) phase down US participation in the summer science institutes; and
- 3) initiate follow-up activities to SSI's.

The Mission plans a further review in late FY 1969.

Method: Mission review chaired by program office.

Timing: April 1969.

6. Joint Participant Training Program - Ag Universities Project

Purpose: This program, under which the participant receives part of his graduate work in the U.S., but completes his thesis at the IARI, has not worked satisfactorily. Need to evaluate to define problems, attempt suggest solutions.

Method: Team of Indians and Americans from universities and participant training branch.

Timing: October, 1968.

B. Developing Evaluation Procedures:

1. Agriculture Universities Development Project 386-11-110-281

Multipurpose Secondary Education 386-11-660-226

Purpose: Both projects are complex and long term efforts to create self-sustaining and effective institutions. For neither has the Mission defined precisely those characteristics which should mark the mature institution and those which mark the maturing institution at various stages of its growth. If these indices or mileposts can be identified, they will provide a measure for assessing the relative progress of the institutions and a guide for the phase down of US assistance. The Mission intends to attempt to establish such criteria for the agriculture universities and the regional colleges of education. For the universities they will provide an evaluative framework for the future. For the regional colleges they will provide a benchmark against which to measure the strength of the institutions when assistance terminates next year.

Method: Mission staff in liaison with the Council of US Universities for Rural Development in India. The Mission's effort will be tied to a forthcoming study which is intended to delineate the characteristics of different types of educational institutions and analyze the role of foreign assistance in achieving them. The study is being prepared by the CIC, a university based group under an AID contract.

Timing: Beginning September 1968.

C. Terminating Projects

1. Bombay Central Training Institute: Project 386-11-420-179

Purpose: A two-stage evaluation of this terminating project. First, a three month assessment beginning September 1968 to review the history of the project and the quality of technical assistance supplied. Purpose of evaluation is to assess the success of US's institution building effort -- the ability of the project to carry on without assistance -- and the relevance and value of the project to India's development. The second stage will be conducted 12 to 18 months later to determine if US assistance has had a sustained impact.

Method: Consultant from Department of Labor, Bureau of Apprenticeship and Training.

Timing: First stage: begin September 1968.

2. Government Operations - 386-11-720-170

Purpose: A two stage evaluation to assess the degree to which the new system introduced by IRS has been effectively installed and is being followed. The followup stage will repeat this assessment in 12-18 months.

Method: TDY team from the US. (Because IRS has been responsible for the project, we believe IRS personnel should not conduct the evaluation. The Mission needs Washington guidance on a suitable source of expertise for the evaluation.)

Timing: Fall 1968.

3. Capital Projects

The Mission is considering evaluating one or more loan projects to compare actual project performance with cost/benefit projections made when the loan was approved. This will be discussed with representatives of NESAC/CDF who are scheduled to visit this Fall.

Part II - Schedule for Submission of PAR's FY 1969

Education	January 31, 1968
Labor	January 31, 1968
Public Administration	January 31, 1968
Export Promotion	January 31, 1968
Agriculture	February 28, 1969
Food Resources	February 28, 1969
Family Planning	March 31, 1969
Health	March 31, 1969

Although submitted at different times, all PAR's will cover the period up to December 31, 1968.

Part III - Evaluation Activity: Jan. -June 1968 and Projection for July-December 1969

A. Jan. -June, 1968: Formal evaluation activity during the first six months of 1968 was not extensive. The Food Resources Division conducted an in-depth evaluation of one Title II, Section 204 project to measure its cost/benefits. (See TOAID A-1625). The Division has also been developing a system to collect base-line data before a project starts, to report on project implementation during its construction, and compile information on the economic returns to the project after its completion. The system is intended to provide information needed for continuous evaluation of 204 projects. In addition, the program office reviewed the implementation of all the projects during January 1968.

B. July 1969 - December 1969 - Projected Evaluation

1. Indian Institute of Technology - Kanpur 386-11-660-150

Purpose: Review growth of this successful institution, assess reasons for its success, review role of US assistance in its growth. This evaluation may be timed to coincide with a possible loan application for continued assistance.

2. Bombay Central Training Institute 386-11-420-179

Follow-up of evaluation scheduled for Fall 1968
may be held in late 1969.

3. Government Operations 386-11-720-170

Follow-up of evaluation scheduled for Fall 1969
may be held in late 1969.

ADDENDUM

AIDTO CIRC XA 2511, Part II, Subsection 2 (Evaluation of Progress toward Objectives) states that the BOB expects "all US agencies to develop non-financial measures of program outputs." It indicates that AID/W and the Bureau are now trying to develop meaningful measures and solicits USAID's suggestions.

For this Mission, non-financial measures of output are necessary only for the technical assistance and Title II programs. The results of production and project loans are best measured with financial or economic indicators.

As stated in the program evaluation schedule, the Mission is seeking in FY 1969 to develop non-financial measures of output for two institution building projects. If these efforts are successful, the Mission will attempt to develop similar indices of performance for other projects. We have, therefore, no specific suggestions at this time, but may be able to make a more substantial contribution later in the fiscal year.