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GOVERNMENT OF KERALA

BUREAU OF ECONOMICS AND STATISTICS
KERALA STATE

An Assessment of the Camp Performance
and the Unprotected Couples in
Palghat District after the
Mass Camp



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1977

DEMOGRAPHIC RESEARCH CENTRE, TRIVANDRUM
OCTOBER 1976

PRINTED BY THE S.G.P. AT THE GOVERNMENT PRESS,
TRIVANDRUM, 1977.

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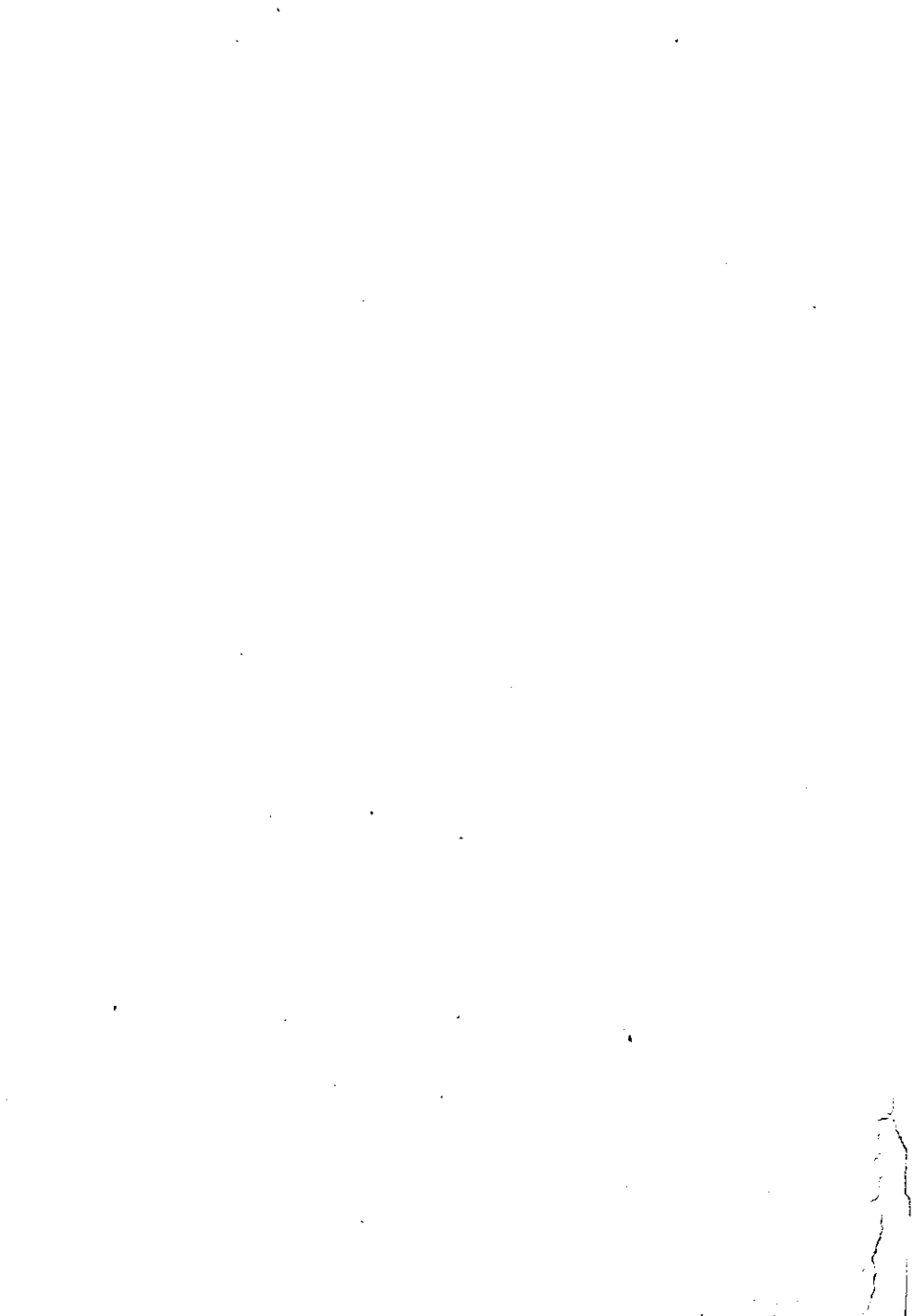




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PREFACE

The Mass Camp conducted at Palghat in January—February 1973 was one of a series of large scale mass camps which began with the first Ernakulam camp of 1970. The Demographic Research Centre has been analysing the characteristics of the acceptors by collecting data at the camp site. Making a departure from the above, a follow-up of a sample of acceptors of the Palghat camp was initiated in March 1973. Due to various unforeseen practical difficulties, the field work could be completed only by October 1974.

The manual tabulation of the data collected, has been delayed due to the pressure of several other items of work. The draft of this report was prepared by Sri O. Ayyappan, Research Officer and Sri P.S. Gopinathan Nair, Assistant Director under the guidance and supervision of Dr. R. S. Kurup, Deputy Director.

Attempt has been made here to present a profile of the eligible couples in the District by age and number of living children. Similar profiles of those who had already been sterilised and the remaining eligible couples are also presented. This gives a firmer idea as to the volume and nature of the work that remains to be done in the District on the Family Planning front even after the camp. It is hoped that this assessment will be taken seriously and attempts to cover the large number of unprotected couples will be initiated immediately.

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Trivandrum,
Nov. 1976.

37/4878/B.



CONTENTS

	<i>Pages</i>
I. Introduction	1
II. Population and Eligible Couples	2
III. About camp acceptors	5
IV. Opinion of acceptors about the camp	8
V. After-effects of sterilisation and follow-up visits	11
VI. What remains to be done ?	13
VII. Policy Implications	13
VIII. Summary findings	14
IX. Schedule	16



LIST OF TABLES

- I. Percentage distribution of estimated number of married females in the age-group 15-44 in Palghat District, by age and number of living children in 1973, and of number already sterilised upto the end of 1972.
- II. Percentage distribution of wives of vasectomised persons and of the females sterilised at the mass camp held at Palghat January-February 1973 by age and parity (No. of children living)
- III. Distribution of acceptors (males) contacted according to their educational standard and number of children living.
- IV. Distribution of the acceptors' wives by educational standard and number of children living.
- V. Distribution of acceptors and their wives according to occupation.
- VI. Distribution of acceptors by occupation and average number of children living.
- VII. Distribution of acceptors by reason for preferring mass camp for vasectomy operation.
- VIII. Distribution of acceptors by reasons for accepting sterilisation
- IX. Distribution of acceptors by reasons for not having undergone sterilisation before the camp.
- X. Distribution of acceptors who reported inadequacy of publicity according to their suggestion for publicity.
- XI. Distribution of acceptors according to the reported ideas received for the improvement from publicity arranged in the camp.
- XII. Distribution of acceptors according to their satisfaction with conveyance, care, attention, food arrangements and services received in the camp.
- XIII (A). Distribution of acceptors' prior use of family planning methods and number of living children.
- XIII (B). Distribution of acceptors who had regular use of contraceptives prior to sterilisation by method and age of the youngest living child.
- XIV (A). Distribution of acceptors by the category of promoters.
- XIV (B). Distribution of 350 acceptors according to the number of living children and category of promoters (excluding by self promoted cases).
- XV. Distribution of 350 acceptors according to reported main items of information, they got from the promoters about the vasectomy.

- XVI. Distribution of acceptors according to main advantage of the operation in the camp as told by promoters.
- XVII. Distribution of acceptors according to their suggestions for changes to make future camps more attractive.
- XVIII. Distribution of 33 acceptors having complaints before operation by the nature of their complaints.
- XIX. Distribution of 77 acceptors having complaints after the operation.
- XX. Distribution of 33 acceptors with complaints by type of persons they contacted.
- XXI. Distribution of 269 acceptors by the time of follow-up visit by family planning workers.
- XXII. Distribution of 269 acceptors by advice given by the family planning staff during follow-up visit.
- XXIII. Distribution of acceptors who are briefed with various precautionary measures by promoters before operation.
- XXIV. Distribution of acceptors who were briefed or not briefed with post operative precautions by type of promoters.
- XXV. Distribution of acceptors by the length of period between operation and starting of sex life.
- XXVI. Distribution of acceptors who have not used condom by reason for the non-use after operation.
- XXVII. Total number of married females in 15-44 age-group and total number of sterilised under the normal programme upto the end of 1972 and the camp held in January—February 1973.
- XXVIII. Percentage of married females in 15-44 sterilised and not sterilised from each age and parity (No. of living children) groups as at the end of the mass camp held in January—February 1973 in Palghat District.
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AN ASSESSMENT OF THE CAMP PERFORMANCE AND THE UNPROTECTED COUPLES IN PALGHAT DISTRICT AFTER THE MASS CAMP

I. Introduction

The role of mass vasectomy camps in the Family Planning Programme in arousing the interest of the eligible couples and attracting them to accept sterilisation had been elaborated in the previous studies of similar camps, at Ernakulam and Trivandrum. The mass camps, initiated by the Government of India in 1972-73 were new experiments in the field of family planning activities to make a break-through and they have undoubtedly paid good dividends. The peculiarities and achievements of the camps have also been examined in the previous studies. It may be remembered here that the Government of India have emphasised now the importance of holding mini camps. A graded system of incentives by number of living children is also instituted. Palghat camp was perhaps the last mass camp conducted in Kerala. The present study will examine the demographic and socio-economic characteristics of persons sterilised at the mass camp and the impact of the above factors on knowledge, attitude and practice, number of children etc. In addition, the after-effects of sterilisation, preference for sterilisation at the mass camp, the acceptability of various media of publicity, role of incentive, impressions and suggestions of the acceptors about the camp and arrangements, role of health and family planning staff in the after-care and follow-up also come within the scope of this study.

An overall assessment of the sterilisations done in the District against the break-up of eligible couples by age and parity is also made here; the magnitude of the unprotected number of eligible couples, is also indicated.

The mass camp was organised at Palghat in January-February, 1973. Field work for the present follow-up study was started in March 1973. Trained Junior Statistical Inspectors under the supervision of the District Statistical Officer, Palghat have done the field work (copy of the questionnaire used is appended).

Altogether 10083 males had been sterilised in the mass camp at Palghat. Ten percent of the total sterilised males were selected for interview. Accordingly 1000 persons were selected. But 138 acceptors out of 1000 belonged to places outside the district so that they had to be removed from the list leaving a balance of 862 acceptors for interview.

The investigators have personally met the acceptors in their houses and collected information. The investigators could contact only 419 acceptors. The other 443 acceptors could not be found out. Thus, the coverage is only 49% of the selected sample. The non-coverage has been due to wrong addresses given, persons having left the place etc.

II. Population and Eligible Couples

(1) *Population growth in the District*—The population of Palghat District which is part of the Malabar area of Kerala State according to the latest census of 1971 is 16.9 lakhs. At the beginning of the century (1901) the population was just 7.6 lakhs. Thus there has been an increase of 120.5% during the seventy year period. But this is much less when compared to the percentage growth of population in the State, during the corresponding period, which is as high as 233%. It is also seen that the percentage decadal variation in Palghat District is lower than that of the State, for every decade as is evident from the following Table:

Year	Persons	Percentage Decadal variation	Percentage Decadal variation of the State
1901	763,917	..	..
1911	819,726	+ 7.3	+11.7
1921	853,988	+ 4.2	+ 9.2
1931	941,286	+10.2	+21.8
1941	1,025,058	+ 8.9	+16.0
1951	1,214,208	+18.4	+22.8
1961	1,369,500	+12.8	+24.8
1971	1,685,342	+23.1	+26.3

Source: Census of India 1971—Part II A—General Population Tables—Page 56.

The estimated population of the District in 1973 is 17.5 lakhs.

(2) *Estimates of Birth and Death Rates*:—Reliable estimates of Birth and death rates are not available for the District though vital statistics registration rates are there; in view of the large under reporting in registration, the figures are not representative. During 1958-60 birth rate based on registered data was 23-25 and death rate 9-12 per 1000 population. From the scheme of Sample Registration which is not intended to provide District-wise estimates, the following figures are worked out; the State figures which

are given along-side shows that rates in Palghat are somewhat higher, the resultant growth rate is lower except for 1973.

	Palghat District		Kerala State	
	Birth rate	Death rate	Birth rate	Death rate
1971	32.8	14.8	31.6	9.8
1972	34.8	13.7	31.7	9.5
1973	34.2	11.4	39.7	8.8

(3) *Characteristics of the population*:—The characteristics of the population, which have important social and economic implications shall be briefly mentioned in this section.

The age distribution of the District population is characterised by a large proportion of children below 15 years and a small proportion of old persons of 60 years and more. The nominal changes in the proportion of broad age groups, between 1961 and 1971 as obtained from census may be seen from the following:

Age group	1961	1971
0-14	40.8	39.7
15-29	25.0	25.5
30-59	27.7	28.0
60+	6.5	6.8

Females out-number the males in all census counts. But the sex ratio (number of females per 1000 males) which has been showing an upward trend from 1901 to 1951, has declined during 1961 and 1971. The sex ratio of the District and the State for the various census years is given below:

Census year	Sex Ratio	
	Palghat district	Kerala State
1901	1042	1004
1911	1057	1008
1921	1069	1011
1931	1079	1022
1941	1079	1027
1951	1085	1028
1961	1077	1022
1971	1056	1016

The sex ratio for various years including 1971 are considerably higher for the District as compared to the State.

The percentage of literates in the District has increased from a low figure of 26.2 in 1951 to 34.0 in 1961 and 46.7 in 1971. This, no doubt, is

much less than the general literacy level of 60.2% in the State. The female literacy in the District has also gone up substantially from 26.1% in 1961 to 39.3% in 1971.

76% of the population are Hindus, 21% Muslims and 3% Christians.

35.9% of the population are ~~returned~~ ^{re-employed} as workers according to 1971 census. The decline in this regard from the 1961 percentage of 40.5, is mostly attributable to change in the definition of workers.*

The work ^{ex} participation rates for males and females (1971) are 49.1% and 23.4% respectively. Among the total workers 48.4% is agricultural labourers and 15.7% cultivators.

Being a predominantly agricultural district, the majority of the population is rural. 89.1% of the total population were rural and only 10.7% urban in 1961. By 1971 these proportions had become 87.3% and 12.7% respectively.

The density of population in the District is much less than that of the State as a whole. As against a density of 549 persons per Sq. km. in the State, there are only 383 persons per sq. km. in the District. The density of the District in 1961 was 311. There are 210765 persons in the category of Scheduled Castes, according to 1971 census; this accounts for 11.9% of the total Scheduled Castes in the State. Barring Cannanore and Kozhikode Districts, Palghat District has the highest number of persons categorised as Scheduled Tribes (25594) who form 9.5% of the total population of Scheduled Tribes in the State. The District lags behind others in development and has higher demographic rates. The comparative backwardness in development is evident from many of the relevant indicators. Among the Districts, the overall literacy (46.7%) as well as the male (54.6%) and female (39.3%) literacy rates are lowest for Palghat District. There are only 65 beds per 1 lakh population in Palghat District, as against 205 for Trivandrum District, 135 for Alleppey and 133 for Kozhikode. The inadequacy of medical services is also evident from the number of medical institutions per 100 Sq. km. which is the lowest for the District namely 56. Being a predominantly agricultural District with paddy as its main stay, there are very few industries in the District; so much so that only 35.8% of the workers are engaged in non-agricultural activities.

*In the 1971 census, a worker was defined as a person whose main activity was participation in any economically productive work, by his physical or mental activity. Work involved not only actual work, but also supervision of work. The reference period for regular work was one week and for other works one year. (2) In the 1961 census, the worker was defined as such, if he was employed in any economically productive work, during any of the 15 days preceding the date of enumeration in case of regular work, and in respect of seasonal work, if a person had put in an hour's work a day, during the major part of the season.

4. *Distribution of married women in the eligible age group by age and number of living children.*—It would be interesting to look into the distribution by age and number of living children, of the total number of married women of the District, who are in their reproductive age group (15-44) as at the commencement of the camp. These are given in Table I.

The total number of eligible women in 1973 is estimated as 2.7 lakhs. The highest proportion (26.4%) of these women is having 4 or more living children. 12.1% have no living children and 19.2% have one child. If those with two living children and above, are considered as eligible for sterilisation, their number comes to 1.9 lakhs. However, if those with 3 living children and above are considered as eligible for sterilisation, the number will be reduced to 1.3 lakhs. Even if age is also taken into consideration and all those above the age of 30 and having 2 or more living children are considered as eligible for sterilisation, the number comes to 1.1 lakhs.

5. *Distribution of sterilised women (including wives of vasectomised persons by age & number of living children.*—Table I also gives the total number of those sterilised under the normal programme till the end of 1972 (that is just prior to the commencement of the camp). A comparison of the distribution of the total eligible women with that of the sterilised women (wives of vasectomised persons) will be revealing.

Of the estimated total number of married women in the 15-44 age group, namely 2.7 lakhs, only a small number of 21591 persons (7.9%) had been sterilised prior to the camp. And even among this small proportion of the sterilised, 64.5% is from those with 4 or more children. To make matters worse, even among the acceptors from the latter group, the coverage is more from the ages 30 and above. Of the total number sterilised (13919) from the 4 or more children group, 11351 (81.6%) are from the ages 30 and above. Thus both from age and parity considerations a very high proportion of sterilisations under the normal programme has taken place from very high parity/age groups. The result is naturally a very meagre demographic impact of the already low performance.

III. About camp acceptor

The enhanced monetary remuneration and fanfare of the camp attracts a particular category of acceptors, who would not have been sufficiently motivated to accept sterilisation, by the usual strategies of the normal programme. Hence, it is desirable to analyse the more important of the characteristics of the camp acceptors. These characteristics are important from the point of demographic impact as well as policy formulations. In the following paragraphs the distribution of camp acceptors by age and number of living children, religion-wise distribution,

the relation between number of living children and education and occupation and expenditure are presented. This is followed by a comparison with other camps.

1. *Age and parity profile of camp acceptors.*—A broad picture of the camp acceptors (wives of 10083 sterilised males and 203 females sterilised by age and number of living children is given in Table II. The camp covered a total of 10286 persons in a period of one month. It would be worthwhile to compare the distribution of camp acceptors, by age and number of living children with similar distribution of the acceptors of normal programme presented in the para given under sub-head (5) above. In general, it is seen that the camp acceptors are not in any way better than those under the normal programme, from the point of view of the demographic impact. A large proportion of camp acceptors is from the higher ages. The percentage of camp acceptors with 4 or more children living is higher by nearly 2%. And within this group, the proportion is higher for camp acceptors in all the three five-year age-groups above 35 years. A similar trend of higher proportion of acceptors in the higher age groups is also seen in the categories with 2 and 3 living children. Thus, the quality of the camp acceptors is demographically lower. The coverage of 10286 is more than the target of 10,000 but only 6.2% of the total number of 1.7 lakhs couples who had been left uncovered at the commencement of the camp (considering the couples with 2 or more living children irrespective of age).

2. *Religion-wise distribution.*—Distribution of the acceptors by religion and caste shows that 84% of the acceptors are Hindus, while their percentage in the general population is 76. The Muslims form 21.3% in the general population, while their percentage among acceptors is only 12.6. As regards Christians, they form 3.3% among acceptors. The acceptance of Christians is slightly more than their percentage in the population. As usual, the percentage of Hindu acceptors is very high.

Of all the acceptors 17.9% are Nairs, 10.7% Ezhavas, 6.2% Chermamar and 5.0% Pulayas. Nairs, thus form the higher percentage followed by Ezhavas. Bramins constitute only 2.1%.

(3) *Education and Average number of children living.*—The percentage of illiterates in the District is 53 as per 1971 census. As against this, 29.4% of vasectomised persons and 46.6% of their wives are illiterates. About 15% of the acceptors, belong to the category of "literate but below primary", while the corresponding figure for the wives is 14.4%. Only 9.5% of the acceptors have their educational level "10th standard and above" while the corresponding figure for the wives is only 5.0%. The impact of education on the average number of living children of the acceptors is shown in Table III.

It is seen that there is a negative relationship between education and average number of living children of the acceptors. Average number of living children of the illiterate acceptors is 5.3, while it is 5.0 for "literate but below primary" and only 4.0 for those who are "matric and above".

Thus, the average number of living children for the acceptors who have studied up to matric and above is found to be *su* all as compared to that of the illiterate acceptors.

Similarly an increase in the educational standard of the wives of the acceptors is also accompanied by decrease in the average number of living children as may be seen from Table IV. Average number of living children for the illiterate wives of the acceptors is 5.4, while the corresponding figure for the wives having educational standard of "matric and above" is only 3.2. The average number of living children per woman for all the educational groups together comes to 4.9.

(4) *Occupation and average number of living children.*—Occupational distribution of the acceptors is given in Table V. Here 37% of the total acceptors are unskilled workers, 31.8% agricultural labourers, 11.4% cultivators, 8.8% businessmen and merchants and 5.4% professionals. Thus, unskilled workers and agricultural labourers together form about 69% of the total acceptors. The corresponding figure for the wives is almost the same. About 25% of the wives are house-wives.

The relationship between the occupation of the acceptors and their average number of living children is given in Table VI. It is seen, that cultivators rank first among the occupational groups in having the highest average number of living children, followed by businessmen and merchants and unskilled workers respectively. Average number of living children for the (i) cultivators, (ii) businessmen and merchants, (iii) unskilled workers, (iv) skilled workers and (v) agricultural labourers are 5.4, 5.2, 5.0, 4.2 and 4.9 respectively. Skilled workers have the lowest average number of living children as compared to all other professional groups.

(5) *Expenditure and Average number of living children.*—It is seen that less than 1% of the total acceptors belong to the expenditure group of below Rs. 50, 11.7% to Rs. 50-99, 18.4% to Rs. 100-149, 30.3% to Rs. 150-199 and 30.5% to Rs. 200 and above. Greater percentage of couples belong to expenditure group of Rs. 200 and above.

There is a negative relationship between expenditure and the average number of living children of the couple. Average number of living children for the couple in the expenditure group of below Rs. 50 is 6.5, whereas the corresponding figure for the couple in the highest income group i.e. Rs. 200 and above is 4.7 which is the lowest average number of living children.

(6) *Comparison with other camps.*—It would be interesting to compare the characteristics of the acceptors as revealed by the follow-up survey, with those of the acceptors of other camps held in the State, to the extent that data permit. In respect of the age-group of the wives of acceptors, that of Palghat camp is demographically less effective as may be seen from the following comparison. Only 26.7% of the acceptors' wives are below 30 years of age, the corresponding percentage of Trichur camp is 34.2, that of Ernakulam 2nd camp is 43.5 and that of Trivandrum camp is 50.2, as for the vasectomised persons themselves, 41.5% of the follow-up persons are below age 40; while the corresponding percentage of Trichur camp is 49.4 of Ernakulam 2nd camp is 61.8 and Trivandrum camp is 59.5.

The poor demographic impact is again revealed by the high percentage of the acceptors with 6 or more children—which is as high as 35.7%. In Trichur camp, this percentage is only 11.6, in Trivandrum camp 9.3 and Ernakulam 1st camp only 6.5. Looking at the problem from another view point, it may be mentioned that those with 3 and less than 3 children, is 24.4% among the persons followed-up, while it is 42.4% in Trichur camp, 51% in Trivandrum camp and 50.4% in Ernakulam 1st camp. The average age of the wife of an acceptor is 39.4 years in the Palghat camp as against 32 for Kerala as a whole in the normal programme.

In view of the above, the average number of births averted by one acceptor in this camp is only two in the years to follow. This is much less ^{as} compared to the other camps—where during the course of 23 years, a sterilised couple will avert 2.54 births in Kerala, the average age of wife being 32 at the time of sterilisation.

IV. Opinion of the acceptors about the camp

In follow up study of camps, the eliciting of opinions and attitudes of the sterilised persons with regard to the organisational details of the camp and family planning acceptances, will be useful for organising future camps. Hence, an analysis of the opinions and attitudes of the respondents in respect of publicity, remuneration, reasons for accepting vasectomy and preference of mass camps is attempted here. Prior use of family planning methods, category of promoters and the like are also important topics for investigation which are included in the following analysis.

1. *Reasons for preference of the Mass Camp.*—Table VII reveals the distribution of acceptors by reason for preferring the mass camp to the normal programme in the Health centres. According to this 51.0% of the total acceptors preferred mass camp for greater monetary remuneration, 30.0% for the services of expert doctors, 13.2% for responsible and careful performance of operation and 5.8% for the facilities for rest and refreshments.

Most of the acceptors preferred mass vasectomy camp for the higher monetary remuneration. It shows the importance of monetary remuneration in attracting persons to such camps.

2. *Opinion about Remuneration.*—Distribution of acceptors according to their satisfaction regarding the amount of remuneration shows that of the total acceptors 72.3% are satisfied with the amount of remuneration they received in the camp; 26.2% are not satisfied. Of the total acceptors 51.1% are not prepared to accept the prevailing remuneration of Rs. 25. They want higher amount. Nearly 38% are prepared to accept the remuneration of Rs. 25.

The amount of remuneration desired by acceptors was enquired into. Of the total acceptors 92% suggested remuneration of Rs. 50.99; only 2% are prepared to accept less than Rs. 50.

3. *Preference for vasectomy.*—The distribution of acceptors by reasons for accepting the vasectomy is given in Table VIII. Of the total 419 acceptors,

two-thirds have undergone vasectomy to limit the number of children because of economic reasons. Considerations of improvement of health of mother and children persuaded 13.6% of the respondents to accept vasectomy and unfavourable physical conditions of the wife for further conception was the reason for 11.2% for undergoing sterilisation. It is seen that 68% of the total acceptors preferred sterilisation as a permanent method of birth control to avoid poverty.

4. *Reasons for delay in accepting vasectomy.*—Distribution of persons, by reason for not having undergone vasectomy operation earlier than the camp, are presented in Table IX. According to this table, 146 acceptors would have undergone sterilisation even if there was no camp, but they could not accept it for reasons shown in the above table.

Unfavourable health conditions account for the non-acceptance of sterilisation for 39.3% of these 146 acceptors, while lack of knowledge of sterilisation, lack of hospital facility and the need for having one more child prevented 30%, 19% and 11.7% acceptors respectively from accepting vasectomy earlier.

The fact that 19% of these acceptors perceived lack of hospital facilities is an important point to be taken into account in the creation of additional facilities or awareness about facilities. Knowledge of family planning and facilities for practising family planning should reach every eligible couple.

5. *About publicity.*—Table X shows the opinion of acceptors about the adequacy of publicity arranged in the camp. Most of the acceptors are fully satisfied with the publicity arranged and hence they have no opinion. Only 7% acceptors are not satisfied. Of those who are not satisfied, nearly 4% suggested that publicity through all media should be extended to the rural areas from where most of the persons come to the vasectomy camp; 7.1% suggested to increase all items of publicity; 89.3% wanted to arrange publicity outside the camp. It is to be stated in this connection that 'outside' means not in front of the camp but in the nearby areas (both urban and rural) of the camp. Opinion of 14% could not be obtained.

Table XI shows the distribution of the acceptors as per their ideas for the improvement of knowledge of family planning from publicity arranged in the camp. Out of the 419 acceptors 183 (44%) could not improve their knowledge from the publicity in the camp while 236 could improve their knowledge.

Of the 236 acceptors, 94% understood family planning as a great blessing for poor people and 5% as a good device for birth control. They could understand these for the first time in their lives from the publicity arranged in the camp.

Distribution of persons according to their satisfaction about food, conveyance, service, care and attention is given in Table XII. It is evident that most of the acceptors seem to have been satisfied with the items listed in Table XII.

6. *Prior use of Family Planning Methods.*—Distribution of acceptors according to the prior use of family planning methods is given in Table XIII

(A) & (B). It is seen from this table that only 21.5% of the total acceptors have used family planning methods before operation. About 56% of those who used family planning methods have 3-4 children, whereas more than 89% of those who have not used methods, have 4-5 children. Thus it is reasonable to conclude that the lower number of children among prior users is because of their use of family planning methods before operation.

Distribution of acceptors who have regularly* used contraceptives prior to sterilisation on the basis of the age of the youngest child shows that for 36% the age of the youngest child is below 2 years. The age of the youngest child for 25% of those who have used contraception is above 6 years. All the 23 persons of this last category are found to be regular users of condom. Besides, it is seen that 9% of those using contraceptives before sterilisation, have been using condom.

7. *Categories of promoters.*—Classification of acceptors by category is given in Table XIV A & XIV B. According to this table, 47.2% of the acceptors have been motivated by Family Planning Health Assistants, 24% by Auxiliary Nurses and Midwives, 3% by Doctors of Primary Health Centres, 1% by Compounders and 13% by Extension Officers. A parity-wise analysis of the acceptors promoted by each category, shows that Family Planning Health Assistants have promoted more or low parity acceptors. The role of Health Assistants was dominant in influencing persons for accepting vasectomy. This feature is noticed in the case of Trivandrum camp also. Midwives and Nurses ranked second in importance in both the camps.

Percentage distribution of acceptors according to the nature of information they got from the promoters is given in Table XV. It is seen that 58.2% of 344 acceptors were informed by the promoters about the permanent nature of vasectomy operation in preventing conception, 9.4% about the superiority and convenience, and 6.3% of the harmless nature of operation. The purpose of the operation were explained to 8.3% of the acceptors and the necessity of observing precautions after operation was briefed to 3.7% acceptors.

Distribution of persons who were told by promoters about the various advantages of the operation in the camp is given in Table XVI. 46.4% of the acceptors were told by the promoters about the greater cash and kind incentives in the camp; 25.6% about the services of expert doctors in the camp, 15.7% about the arrangements for rest and refreshment and 12.3% about the careful and responsible performance of operation in the camp.

8. *Readiness of acceptors to Recommend Vasectomy to others.*—Out of 419 acceptors 383 (91%) are willing to recommend vasectomy to their friends and relatives. Only 36 acceptors are not willing. Of the 36 acceptors who are not willing, two thirds are unwilling because they had some complaints after sterilisation; while one fourth would keep it as a secret.

*Here, a regular user is one who protects all coitus by use of a contraceptive.

9. *Suggestions for Improvement.*—Suggestions of the acceptors for changes to be made so that future camps become more attractive are embodied in table XVII. This table shows that 46% of the acceptors have suggested enhancement of monetary remuneration, 22.4% increase in food and conveyance facilities, 12.4% services of expert doctors, 8.6% medical follow-up just after the operation and 5% avoidance of persons already having complaints for sterilisation as changes for making similar camps more attractive. Of the total acceptors 5.8% have no suggestions.

One conspicuous feature revealed is that 46% of the acceptors suggested to enhance monetary remuneration in future camps. This means that remuneration was the main attraction of the camp for them or that they found other items quite satisfying. Next to enhancement of remuneration is the increase in the facilities for food and conveyance, as may be seen from the above table.

V. After-effects of sterilisation and follow-up visits

Certain aspects of after-effects following sterilisation like physical complaints which the acceptors are reported to have suffered from, the adequacy or otherwise of the follow up visits by family planning staff, observance or failure of recommended precautions are examined in this section. This is attempted in view of the fact that the satisfaction derived by the acceptors will be beneficial in the process of diffusion of information about the camp; the after-sales service is, indeed, a crucial factor. These aspects are analysed in the following paragraph :

1 *After effects.*—It is seen that 33 acceptors out of the total 419, had complaints before the operation. The distribution of these 33 acceptors by nature of complaint is given in Table XVIII. Stomach-ache, Hydroceles and general weakness, account for 24% each of the total number having complaints.

The number of acceptors who had complaints after operation is given in Table XIX. Of the 419 acceptors 19% had complaints after operation. Of these, 23.4% have physical weakness, 15.6% pus formation, 15.6% pain at the time of ejaculation, 15.6% decrease in retentive power, 3.9% lack of sex desire and 2.5% have swelling.

Greater percentage of acceptors have physical weakness which was a common complaint. Pain at the time of ejaculation, pus formation and decrease in retentive power are other complaints.

It is to be made clear in this context that the 77 acceptors who have complaint after operation include 33 acceptors who had complaints before operation. Thus, there are only 44 acceptors who developed complaints after the operation.

Of the 44 acceptors who suffered from complaints after the operation, 26 acceptors attributed these complaints to sterilisation. Their reason to

attribute complaints to sterilisation was, that they had no such complaints before the operation and their complaints were closely connected with the operated organ.

According to table XX, only 33 out of 77 acceptors approached medical persons for cure. Of these 76% approached the doctors, 12% approached family planning workers, 6% met village officers, 3% Ayurveda physicians, and 3% local Vaidyans.

Of the 33 acceptors 30% received treatment but were not cured. 27% got medicines 12% got injection and tablets, 18% were advised to take rest, and 9% were treated and swelling cured. On the whole the results of their contact were encouraging.

2. *Follow-up visits by Family Planning Staff.*—Of the total acceptors 64% were visited by family planning staff after operation. 44% of the visit were by family planning Health Assistants, 23% auxiliary nurses midwives, 24% health assistants, 9% other family planning workers and midwives. The role of family planning health assistants in the follow-up visits, as in the case of promotion, is very important.

It is also important to know the exact time of visits paid by family planning staff. Their time of visits is shown in Table XXI. According to this table, 34% of the 269 acceptors, were visited after 3 days of operation and 24% after 4 days of operation. In other words 58% were visited after 3—4 days of operation while 23% were visited only after 10 days of operation.

The results of the visits of health and family planning staff are shown in Table XXII. Out of 269 acceptors who were visited by family planning staff, 260 are reported to be benefited by their visits. Of this 44% got advice to take rest, 23% were examined, advised and medicines were prescribed, and 16% were advised to observe precautions. It can, thus be concluded that the visits of the family planning staff are useful to the acceptors.

3. *Observation of precautions.*—Table XXIII shows the distribution of acceptors who were briefed with precautions to be observed. According to this table 254 (60%) out of 419 acceptors were briefed with precautionary measures, 118 persons were not briefed and for about 47 acceptors no information was available.

Of the 254 acceptors 55.5% were advised to take rest, 8.7% to use condom when sex life is resumed, 15% to have proper sanitation and regular dressing, and 18.5% to have sexual abstinence. From this table, it is clear that emphasis was put on the necessity of taking rest after the operation.

56.7% of the 254 acceptors were briefed with post operative precautions by family planning health assistants, and 15% by village extension officers. The other categories of promoters do not come anywhere near the above two types. Details are given in Table XXIV.

Another advice given was to use condom for at least 3 months after the operation and to delay sex life for a week or two. The relevant distribution of acceptors by the length of period between operation and starting of sex life is given in table XXV. It is seen in this table that only 363 out of 419 acceptors had given answers to this question; 56 acceptors had no answer.

Of the 363 acceptors 38.6% resumed sex life after 1-2 months of the operation, 25.1% after 2-3 months, 12.7% after 3-4 months. A notable point is that no body resumed sex life before one month and almost all the acceptors observed precautions regarding sex life after operation.

According to table XVI 345 acceptors out of 400 have used condom and 55 have not used it owing to various reasons embodied in this table. As may be seen from this table, 49.1% of the non-users could not use it for inconvenience, 21.8% on account of the success of operation, 7.3% due to the pregnancy of their wives, 7.3% for objection from wives, and 5.5% due to the lack of sexual pleasure.

The percentage of acceptors who did not use condom but were provided with condom at the time of operation was very small. And the reasons for the non-use of condom are convincing.

VI. What remains to be done ?

In the light of the progress of family planning programme in the District before the camp and the relatively higher achievement of the camp during the short period of one month, it is worthwhile to examine the work that remains to be done, not only in terms of total number of eligible couples but also in terms of their age and parity distribution. The combined achievement of the normal programme before the camp and of the camp, is given in Table XXVII. Each cell of the table provides, the percentage of married women in each of the five year age groups between 15-44 years and percentage sterilised from each age group paritywise. The very high coverage from the higher age and parity groups is evident. 65% are from the 4+ parity group. A large chunk of those eligible for sterilisation, still remains to be covered even after the camp. This comes to 1.6 lakhs, considering the 2nd and above parity group.

The percentage distribution of those sterilised and not sterilised from each age and parity group is given in Table XXVIII. The vast majority of women in the various age groups of 2nd and 3rd parities, ranging from 87 to 99% are yet to be sterilised. Even in the 4+ parity group, 64 to 93% in the various age groups has not yet accepted sterilisation. In view of this, the work that remains to be done even after the camp, is very heavy requiring concerted and continued efforts to motivate all those who are eligible for sterilisation.

VII. Policy Implications

The foregoing analysis throws up certain relevant points which have very serious policy implications. While the concerted and co-ordinated efforts in organising the camp, have paid good dividends in terms of a large

number of sterilisations in a short period, their quality has not improved as compared to the normal programme, considering age and number of living children. With much higher monetary remuneration for each sterilisation and consequent higher cost per sterilisation, there is a strong need to do careful weeding so that only demographically effective cases are sterilised; others whose acceptance will result in poor yield from the demographic point, may be advised to go in for the normal programme.

The analysis attempted in this paper—namely the distribution of the total eligible women and of those sterilised, (wives of vasectomy acceptors) by age and number of living children will be helpful in focusing attention on the magnitude of the work that remains to be done and the greater need to concentrate on younger couples, the majority of whom are not yet covered. The preparation of similar statements, depicting the profiles of the eligible women and those already sterilised at the Primary Health Centre and District levels will be extremely useful for the field workers to plan their work in a more meaningful and effective way. Identification of high fertile groups and listing the couples who have to be immediately tackled will be possible by this approach. In fact, this paves the way for a sectional approach to family planning and combined with the knowledge of the couple's attitude to family planning, the workers will be able to fix up targets for performance. This will, therefore, be helpful in introducing the concept of participative management in family planning programme, which is yet to be tried, as opposed to the current method of allocation of targets.

The relatively better performance of the family planning staff in motivating lower parity acceptors, points to possibility of persuading them to adopt a more conscious selection of their acceptors even for the normal programme, so that better demographic impact could be obtained from the programme.

VIII. Summary Findings

1. According to the follow-up survey, of the total acceptors, 84% are Hindus, 13% Muslims and 3% Christians.

2. With respect to age distribution, 73% of the acceptors belong to 25-39 age group.

3. The distribution according to literacy shows that 29% of the acceptors and 43% of wives are illiterate. There is a negative relationship between education and average number of living children of the acceptors.

4. Skilled workers have the lowest average number of children (4.2) as compared to other professional and worker categories. Cultivators have the highest average number of living children (5.4).

5. There is a negative relationship between expenditure and the average number of living children of the couple.

6. Only 21.5% of the total acceptors have used family planning methods before operation. Average number of living children for those

who used family planning method is lower than for the non-users of family planning method.

7. Condom is the most popular contraceptives among the acceptors.

8. Nearly 50% of the promotors are family planning health assistants followed by auxiliary nurses and midwives. Acceptors were well informed by the Promotors.

9. Of the total acceptors 51% preferred mass vasectomy camp for greater monetary remuneration, 30% for the services of expert doctors, 13% for the careful performance of operation and 5% for rest and refreshment.

10. About 72% of the acceptors are satisfied with the amount of monetary remuneration they received; 51% find the prevailing amount of Rs. 25 as too low a compensation for loss of wages.

11. 19% of the acceptors had complaints after the operation. Greater percentage of acceptors had physical weakness which is a common complaint. Pain at the time of ejaculation, pus formation, decrease in retentive power, lack of sex desire, are other complaints. Out of 77 with complaints only 33 acceptors approached medical persons for advice and cure.

12. Of the total staff who made follow up visits 44% are family planning health assistants, 23% auxiliary nurses and midwives and 24% health assistants.

13. About 68% of the total acceptors preferred vasectomy as a permanent method of birth control, 10% because of monetary remuneration and 9% liked its simple nature; 8% had no knowledge about other methods but they wanted to practise family planning, 5% wanted to avoid the inconvenience to keep contraceptives (in their houses) for regular use.

14. 67% under-went vasectomy for economic reasons and the desire to reduce the number of children, 13% for improving the health of mother and children, and 11% for unfavourable physical condition of wives for further conception.

15. 391 persons were fully satisfied with the publicity arranged; 236 acceptors could improve their knowledge from the publicity in the camp; 363 acceptors were satisfied with food arrangement.

16. Nearly 50% of the acceptors contacted, suggested to enhance monetary remuneration in future camps; 22% to increase food and conveyance facilities; 12% for the services of expert doctors and 9% for medical follow up.

17. 383 are willing to recommend vasectomy to their friends and relatives.

18. Considering those with 2 children and above, as eligible for sterilisation, a large chunk (1.6 lakhs) still remains to be covered. Besides, even among the acceptors more than two-thirds are from the group with 4 or more living children. And hence the work that remains to be done, even after the camp is very heavy.

TABLE : 1.
 Percentage distribution of estimated number of married females in the age group 15-44 in Palghat District, by age and No. of living children in 1973, and of number already sterilised up to the end of 1972

Age group	Item	No. of living children					Total
		0	1	2	3	4+	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
15-19	Sterilised	Nil	0.2	0.3	0.2	..	144 (0.7)
	Total No. of married females in the age group 15-44	6.2	5.0	2.3	0.3	0.1	38135 (13.9)
20-24	Sterilised	0.2	0.2	4.8	4.1	1.3	2291 (10.6)
	Total No. of married females in the age group 15-44	2.7	7.4	6.1	3.6	1.9	59290 (21.7)
25-29	Sterilised	0.2	0.2	4.7	7.2	10.6	4945 (22.9)
	Total No. of married females in the age group 15-44	1.2	3.0	5.0	6.1	4.3	53498 (19.6)
30-34	Sterilised	..	0.2	1.3	4.8	19.8	5631 (26.1)
	Total No. of married females in the age group 15-44	0.8	1.9	3.8	4.8	6.5	48528 (17.8)
35-39	Sterilised	..	0.5	0.6	3.0	20.0	5508 (24.1)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Total No. of married females in the age group 15-44	0.7	1.1	2.4	3.4	7.7	41870 (15.3)
40-44	Sterilised	..	0.4	1.0	1.5	12.8	3372 (15.6)
	Total No. of married females in the age group 15-44	0.5	0.8	1.5	2.9	6.0	31904 (11.7)
Total	Sterilised ..	87 (0.4)	359 (1.7)	2736 (12.6)	4490 (20.8)	13919 (64.5)	21591 (100.0)
	Total No. of married females in the age group 15-44	32956 (12.1)	52521 (19.2)	57706 (21.1)	57889 (21.2)	72153 (26.4)	273225 (100.0)
	Balance left	32896	52162	54970	53399	58234	251634

TABLE II
**Percentage distribution of the wives of vasectomised persons and of the females
sterilised at the mass camp held at Palghat—January-February 1973
by age and parity (No. of children living)**

Age group	No. of living children					Total
	0	1	2	3	4+	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
15-19	..	0.3	0.2	..	..	502 (0.5)
20-24	0.2	0.2	4.2	2.2	0.6	770 (7.5)
25-29	0.2	0.3	4.4	6.0	9.0	2049 (19.9)
30-34	..	0.2	1.3	5.1	21.1	2847 (27.7)
35-39	..	0.5	0.7	3.2	22.0	2712 (26.4)
40-44	..	0.5	1.2	1.7	14.6	1856 (18.0)
Total	49 (0.5)	198 (1.9)	1240 (12.0)	1869 (18.2)	6930 (67.4)	10286 (100.0)

females

TABLE III

Distribution of acceptors males contacted according to their educational standard and number of children living

Educational standard	No. of children living											Total	Percentage	Average No. of children living		
	1	2	3	4	5	6	7	8	9	10	11				above	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Illiterate	..	10	13	27	18	16	14	8	6	3	2	..	117	29.4	5.3	
Literate but below primary	..	3	8	14	17	7	5	4	1	1	..	..	60	15.1	5.0	
Primary and above but below matric	1	22	24	18	45	31	18	10	6	4	4	..	183	46.0	5.2	
Matric & above	..	4	12	10	10	..	1	..	..	1	..	..	38	9.5	4.0	
Total:	1	39	57	69	90	54	38	22	13	9	6	..	398	100.0	5.1	
	(0.3)	(9.8)	(14.3)	(17.3)	(22.6)	(13.6)	(9.6)	(5.5)	(3.3)	(2.3)	(1.5)	(100.0)				

For 21 cases information on number of children and education were not recorded.

TABLE IV
 Distribution of the acceptors wives by educational standard and number of children living

Educational standard of wives	No. of children living											Total	Percentage	Average No. of children living	
	1	2	3	4	5	6	7	8	9	10	11				above
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Illiterate	..	15	18	40	27	28	24	7	8	2	9	..	178	46.6	5.4
Literate but below primary	1	4	4	11	13	11	5	4	1	1	..	..	55	14.4	5.1
Primary and above but below matric	..	18	21	34	28	11	9	3	2	2	..	..	128	33.5	4.4
Matric & above	..	6	8	3	4	..	..	..	..	..	..	..	21	5.5	3.2
Total:	1	43	51	88	72	50	38	14	11	5	9	..	382	100.0	4.9
Percentage	(0.3)	(11.3)	(13.3)	(23.0)	(18.9)	(13.1)	(9.9)	(3.7)	(2.9)	(1.3)	(2.46)	..	(100)		

For 37 cases information on number of children living and education were not recorded.

TABLE: V

Distribution of acceptors and their wives according to occupation.

Sl. No.	Nature of occupation	Vasectomy acceptors		Wives of vasectomy acceptors	
		Number	percentage	Number	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1	Agricultural labour	129	31.8	93	35.2
2	Skilled workers	12	2.9	1	0.4
3	Unskilled workers	147	37.0	92	34.2
4	Cultivators	46	11.4	1	0.4
5	Business men and merchants	36	8.8	Nil	Nil
6	Professional	22	5.4	4	1.6
7	House wives	Nil	x	70	25.0
8	Others	11	2.7	8	3.2
	Total	403	100.0	269	100.0
	Not Recorded	16	x	150	x
	Grand Total	419	x	419	x

TABLE: VI

Distribution of acceptors by occupation and average number of children living

Sl. No.	occupation	Number of children of acceptors					Total No. of acceptors	Average No. of Children % living	
		0	1	2	3	4 and above			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Agricultural labour	..	..	8	16	105	129	32.5	4.9
2	Skilled workers	..	1	1	3	7	12	8.7	4.2
3	Unskilled workers	1	..	17	17	112	147	37.5	5.0
4	Cultivators	..	..	3	..	43	46	11.5	5.4
5	Businessmen & merchants	..	..	4	4	28	36	9.0	5.2
6	Professionals	..	..	2	7	13	22	7.2	4.9
7	Others	..	..	2	2	7	11	3.6	4.3
	Total	1	1	37	49	315	403	100.0	4.8
	Not Recorded	..	..	..	..	..	16	..	x
	Grand Total	..	..	..	..	..	419	..	x

TABLE: VII

Distribution of acceptors by reason for preferring mass camp for vasectomy operation

Sl. No.	Reasons for preferring mass camp	Acceptors	
		Number	Percentage
(1)	(2)	(3)	(4)
1	Greater monetary incentive in the camp	194	51.0
2	Services of expert doctors	112	30.0
3	Responsible and careful performance of operation	53	13.2
4	Facilities for rest and refreshment	22	5.8
	Total	381	100.0
	Not recorded	38	x
	Grand Total	419	x

TABLE: VIII

Distribution of acceptors by reasons for accepting sterilisation

Sl. No.	Reasons	Acceptors	
		Number	Percentage
(1)	(2)	(3)	(4)
1	To avoid poverty	279	68.0
2	To improve health of mother and children	49	13.6
3	Unfavourable physical condition of mother for further conception	42	11.2
4	Others	30	7.2
	Total	400	100.0
	Not Recorded	19	x
	Grand Total	419	x

TABLE: IX

Distribution of acceptors by reasons for not having undergone sterilisation before the camp.

Sl. No.	Reasons for not having undergone sterilisation	Number of acceptors	Percentage
(1)	(2)	(3)	(4)
1	Lack of knowledge of sterilisation	42	30.0
2	Unfavourable health for sterilisation	56	39.3
3	Lack of hospital facilities in the near-by area	27	19.0
4	To have one more child	16	11.7
	Total	146	100.0
5	No reason for not having undergone sterilisation	269	..
6	Not Recorded	4	..
	Grand Total	419	..

TABLE: X

Distribution of acceptors who reported in-adequacy of publicity according to their suggestion for publicity

Sl. No.	Suggestion for improvement	Number of acceptors	Percentage
(1)	(2)	(3)	(4)
1	Publicity should be extended to rural areas	1	3.6
2	To increase all items of publicity	2	7.1
3	Publicity should be arranged outside the camp	25	89.3
	Total	28	100.0

TABLE: XI

Distribution of acceptors according to the reported ideas received for the improvement from Publicity arranged in the Camp

Sl. No.	Reported idea	Acceptors who could improve knowledge	
		Number	Percentage
1.	Small Family is a blessing to poor family	222	94.1
2	Vasectomy is a good and simple birth control method	12	5.0
3	Vasectomy is not harmful	2	0.9
	Total	236	100.0

TABLE: XII

Distribution of acceptors according to their satisfaction with conveyance, care, attention, food arrangements and services received in the camp

Sl. No.	Items	Number reported satisfaction (out of 419 acceptors)	
1	Conveyance facilities	..	376
2	Care and attention	..	387
3	Services received	..	361
4	Food arrangements	..	363
	Not recorded	..	22

TABLE XIII (A)

Distribution of acceptors prior use of family planning methods and number for living children

Sl. No.	Number of living children	Those who had prior use of family planning methods		Those who had not prior use of family planning methods	
		Number	Percentage	Number	Percentage
1	0	..	..	2	0.6
2	1	4	4.4	4	1.2
3	2	21	23.1	30	9.1
4	3	30	33.0	43	13.1
5	4 & above	36	39.5	243	76.0
6	Total	91	100.0	322	100.0
7	Not recorded	..	..	6	..
	Grand total	91	..	328	..

TABLE XIII (B)

Distribution of acceptors who had regular use of contraceptives prior to sterilisation by method and the age of the youngest living child

Sl. No.	Age of the youngest living child	Type of contraceptive used					Total
		Condom	Foam tablets	Jelly/ cream	Diaphragm	Others	
1	Below 1 year	12	..	..	..	..	12
2	1-2 years	19	1	1	..	..	21
3	2-3 "	13	2	..	1	1	17
4	3-6 "	16	..	..	..	1	17
5	Above 6 years	23	..	..	..	..	23
6	No children	1	..	..	..	..	1
	Total	84	3	1	1	2	91
	Percentage	90.0	4.0	1.5	1.5	3.0	100.0

TABLE XIV (A)

Distribution of acceptors by the category of promoters

Sl. No.	Category of promoters	Number promoted	Percentage
1	Family Planning Health Assistants	165	47.2
2	Compounder	4	1.0
3	Auxilliary Nurses & Midwives (ANM)	84	24.0
4	Friends and relatives	4	1.1
5	Village Extension Officer	46	13.1
6	Doctors of Public Health Centre	10	3.0
7	Others	37	10.6
	Total	350	100.0
	Self promoted	69	..
	Grand total	419	..

TABLE XIV (B)

Distribution of 350 acceptors according to the number of living children and category of promoters (excluding by self promoted cases).

Sl. No.	Category of promoters	Number of children						Total	
		2 and less than 2 children	3 children	3 and above	Percent- age	Percent- age	Percent- age		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Family Planning Health Assistants	24	14.5	38	23.0	103	62.5	165	100.0
2	Compounder	1	25.0	..	..	3	75.0	4	100.0
3	Auxiliary Nurses and Midwives	6	7.0	6	7.0	72	86.0	84	100.0
4	Friends and relatives	3	75.0	..	..	1	25.0	4	100.0
5	Village Extension Officers	7	15.2	7	15.2	32	69.6	46	100.0
6	Doctors of Public Health Centres	..	..	1	10.0	9	90.0	10	100.0
7	Others	10	27.0	9	24.3	18	48.7	37	100.0
	Total	51	13.5	61	16.5	238	70.0	350	100.0

TABLE XV

Distribution of 350 acceptors according to reported main items of information, they got from the promoters about vasectomy

Sl. No.	Main items of information as reported	Acceptors who reported	
		Number	Percentage
1	Purpose of vasectomy	29	8.3
2	Superiority & convenience of Vasectomy	33	9.4
3	Simplicity of vasectomy	50	14.3
4	Permanent nature of vasectomy in preventing birth	197	58.0
5	Its harmless nature	22	6.3
6	Precautions to be observed	13.	3.7
7	Total	344	100.00
	Not recorded	6	..
	Grand total	350	..

TABLE XVI

Distribution of acceptors according to main advantage of the operation in the camp as told by promoters

Sl. No.	Nature of the advantages	whose who were told of the advantages	
		Number	Percentage
1	Services of expert doctors	89	25.6
2	Greater cash and kind incentives	152	46.4
3	Arrangements for rest and refreshment	55	15.7
4	Careful & responsible performance of operation	43	12.3
	Total	339	100.0
	Not recorded	11	..
	Grand total	350	..

TABLE XVII

Distribution of acceptors according to their suggestions for changes to make future camps more attractive

Sl. No.	Suggestions	Number	Percentage
1	Increase remuneration	192	45.8
2	Medical follow up after operation	36	8.6
3	Persons having previous complaints should not be sterilised	21	5.0
4	Services of expert doctors in the camp	52	12.4
5	Facilities of food and conveyance should be increased	94	22.4
6	No specific suggestions	24	5.8
	Total	419	100.0

TABLE XVIII

Distribution of thirtythree acceptors having complaints before operation by the nature of their complaints

Sl. No.	Nature of complaints	Those who had complaints	
		Number	Percentage
1	Back pain	5	15.1
2	Stomach-ache	8	24.3
3	General weakness	8	24.3
4	Liver complaints	1	3.0
5	Hydrocele	8	24.3
6	Others	3	9.0
	Total	33	100.0

TABLE XIX

**Distribution of seventy seven acceptors having
complaints after the operation**

Sl. No.	Nature of complaints	Acceptors having complaints	
		Number	Percentage
1	Swelling	2	2.5
2	Pain at the time of ejaculation	12	15.6
3	Pus formation	12	15.6
4	Decrease in retentive power	12	15.6
5	Lack of sex desire	3	3.9
6	Physical weakness	18	23.4
7	Others	18	23.4
	Total	77	100.0

TABLE XX

**Distribution of 33 acceptors with complaints by
type of persons they contacted**

Sl. No.	Type of persons contacted by the acceptor	Acceptors who contacted	
		Number	Percentage
1	Ayurveda Physicians	1	3.0
2	Doctors	25	76.0
3	Family Planning Workers	4	12.0
4	Village Officers	2	6.0
5	Local Vydians ^ε	1	3.00
6	Total	33	100.00

TABLE XXI

Distribution of 269 acceptors by the time of follow up visit by Family Planning Workers,

Sl. No.	Time of visit by Family Planning Workers	Number of acceptors	Percentage
1	After one day	3	1.1
2	2 days	5	1.9
3	3 days	92	34.2
4	4 days	65	24.1
5	5 days	14	5.2
6	6 days	Nil	..
7	7 days	25	9.3
8	8 days	2	0.8
9	9 days	Nil	..
10	10 days and above	63	23.4
	Total	269	100.0

TABLE XXII

Distribution of 269 acceptors by advice given by the Family Planning Staff during follow-up visit

Sl. No.	Nature of useful result	Those who had useful result.	
		Number	Percentage
1	Advice to take rest	115	44.2
2	To observe precautions	43	16.6
3	Advised for the care of weakness	5	2.00
4	Asked about the post operative condition of body	12	4.6
5	Examined and prescribed medicines	60	23.0
6	Advised about the nature of work to do for six months	25	9.6
	Total	260	100.0
	No Advice	9	
	Grand total	269	

TABLE XXIII

Distribution of acceptors who were briefed with various precautionary measures by promoters before operation

Sl.No.	Various precautions	Those who were briefed	
		Number	Percentage
1	To use condom	22	8.7
2	Take rest	141	55.5
3	To use tablets	6	2.4
4	Proper sanitation and regular dressing	38	14.9
5	Sexual abstinence	47	18.5
	Total	254	100.0

TABLE XXIV

Distribution of acceptors who were briefed or not briefed with post operative precautions by type of promoters

Sl. No.	Category of promoters	Acceptors who were briefed		Who were not briefed	
		Number	Percentage	Number	percentage
1	Family Planning Health Assistants	144	56.7	21	21.9
2	Compounder	2	0.8	2	2.1
3	Auxiliary Nurses & Midwives	35	13.8	49	51.0
4	Friends and Relatives	3	1.2	1	1.0
5	Village Extension Officer	37	14.6	9	9.4
6	Doctors of Primary Health Centre	5	1.9	5	5.2
7	Others	28	11.0	9	9.4
	Total	254	100.0	96	100.0

TABLE XXV

Distribution of acceptors by the length of period between operation and starting of sex life

Sl. No.	Length of period	Number	Percentage
1	After 1 month	51	14.0
2	1-2 months	140	38.6
3	2-3 „	91	25.1
4	3-4 „	46	12.7
5	4-5 „	17	4.7
6	5-6 „	8	2.2
7	Above 6 months upto time of survey	10	2.7
	Total	363	100.0
	No answer	56	
	Grand total	419	

TABLE XXVI

Distribution of acceptors who have not used condom by reason for the non-use after operation

Sl. No.	Reason for the non-use of condom	Number	Percentage
1.	Inconvenience	27	49.1
2.	Operation was successful	12	21.8
3.	Objection of wife	4	7.3
4.	Wife was pregnant at the time of operation	4	7.3
5.	Due to the lack of sexual pleasure	3	5.5
6.	Did not know how to use	3	5.5
7.	Wife is no more	2	3.5
	Total	55	100.0

TABLE XXVII

Total number of married females in 15-44 age group and total number of sterilised under the normal programme upto the end of 1972 and the camp held in January—February 1973

Age group	0	1	2	3	4	Total No. of (per-centage) persons
15—19	..	0.2	0.3	0.1	..	196 (0.6)
	6.2	5.1	2.3	0.3	0.1	38135 (14.0)
20—24	0.2	0.2	4.6	3.5	1.1	3061 (9.6)
	2.7	7.4	6.1	3.7	1.8	59290 (21.7)
25—29	0.2	0.2	4.6	6.8	10.1	6994 (21.9)
	1.2	3.0	5.0	6.1	4.3	53498 (19.6)
30—34	..	0.2	1.3	4.9	20.2	8478 (26.6)
	0.8	1.9	3.8	4.8	6.5	48528 (17.8)
35—39	..	0.5	0.6	3.1	20.7	7920 (24.9)
	0.7	1.1	2.4	3.4	7.7	41870 (15.3)
40—44	..	0.4	1.1	1.6	13.3	5228 (16.4)
	0.5	0.7	1.5	2.9	6.0	31904 (11.6)
Number sterilised	136 (0.4)	557 (1.7)	3976 (12.5)	6359 (20.0)	20849 (65.4)	31877 (100.0)
Total No. of couples	32956 (12.1)	52521 (19.2)	57706 (21.1)	57889 (21.1)	72153 (26.4)	273225 (100.0)
Balance left.	32820	51964	53730	51530	51304	241348

TABLE XXVIII

age group

Percentage of married females in 15-44 sterilised and not sterilised from each age and parity (No. of living children) group as at the end of the mass camp held in January-February 1973 in Palghat District

Sl. No.	Age group	0	1	2	3	4+	Total
1	15—19	..	0.5	1.3	5.5	..	0.5
		100	99.5	98.7	94.5	..	99.5
2	20—24	0.9	0.3	8.7	11.2	6.8	5.2
		99.1	99.7	91.3	88.8	93.2	94.8
3	25—29	2.1	0.8	10.8	13.1	27.6	13.1
		97.9	99.2	89.2	86.9	74.4	86.9
4	30—34	..	1.3	4.0	11.8	36.3	17.5
		..	98.7	96.0	88.2	63.7	82.5
5	35—39	..	5.0	3.1	10.3	31.4	18.9
		..	95.0	96.9	89.7	68.6	81.1
6	40—44	..	6.6	8.4	6.2	25.9	16.4
		..	93.4	91.6	93.8	74.1	83.6
Total		..	6.9	..	10.9	28.9	11.7
		..	93.1	..	89.1	71.1	88.3

SCHEDULE FOR FOLLOW UP SURVEY OF PERSONS
STERILISED AT THE MASS CAMPS

I. Identification particulars :

- | | |
|---|----------------|
| 1. District : | 2. Block : |
| 3. Corporation/Municipality/
Panchayat : | |
| 4. Name of the respondent : | 5. House No. : |

II. General characteristics :

- | | |
|---|---|
| 1. Religion : | 2. Caste : |
| 3. Education : Husband : | Wife : |
| 4. Occupation : H | W |
| 5. Monthly expenditure of the household | Rs. |
| | at present at marriage |
| 6. Age of (a) Husband : | |
| (b) Wife : | |
| 7. Number of children (a) born : | Male Female |
| (b) alive at present : | |
| (c) living with you
in the household : | |
| 8. What is the age of your youngest living child? | |

III. Details of sterilisation :

(a) *Previous contraceptive practice :*

- (1) Have you regularly used Yes/No
con:ceptives prior to
sterilisation

- (2) If yes, what were the (1) condom
methods :

- (2) foam tablet
(3) jelly
(4) diaphragm
(5) others

(b) *Reasons for preference and acceptance of sterilisation :*

- | | |
|--|--|
| (1) Why did you prefer sterilisation to other methods of birth control | (1) Permanent
(2) simple
(3) not harmful
(4) to avoid inconveniences to keep and use contraceptives
(5) only method known
(6) for monetary incentive |
| (2) Reasons for accepting sterilisation | (1) to avoid poverty

(2) to improve health of children and mother
(3) unfavourable physical condition of mother for further conception
(4) others (specify) |

IV. **Motivation :**

- | | |
|--|---|
| (1) Have you got any advice from any person in connection with this operation | Yes/No |
| (2) If yes, who were those persons | (1) friend
(2) relative
(3) family planning worker
(4) others (specify) |
| (3) Occupation/Profession of those persons | |
| (4) Who was most influential among those who advised in taking decision to undergo operations (not profession) | |
| (5) Did he tell anything more about sterilisation | Yes/No |
| (6) If yes, what? | (1) its purpose
(2) superiority and conveniences over other methods
(3) simpleness
(4) permanent prevention of birth
(5) Harmless
(6) Precautions to be followed after operation |

- (7) Has your promoter told anything about the advantages of operation in the mass camps?
- (8) If yes, what are those?
- (1) services of expert doctors in the camp
 - (2) careful and responsible performance of operation
 - (3) special attention to diseases if any unfavourable for operation
 - (4) careful post operative attention
 - (5) facilities for medical follow up
 - (6) arrangements for rest and refreshment
 - (7) greater cash and kind incentive

V. Incentive :

1. Would you have undergone sterilisation if there was no camp? Yes/No
2. If yes, why did you not undergo sterilisation earlier
 - (1) Lack of hospital facility in the nearby area
 - (3) to have one more child
 - (4) others (specify)
3. If no, why did you prefer mass camp to Primary Health Centre for sterilisation?
 - (1) greater monetary remuneration in the camp
 - (2) services of expert doctors and other advantages over Primary Health Centres
4. Did you receive any cash incentive? If yes, how much
 - (1) cash (Rs.)
 - (2) kind (Name)
 - (3) give the approximate value
5. After the operation were you briefed with the post operative precautions? Yes/No
6. If you, what were those precautions
 - (1)
 - (2)
 - (3)
 - (4)

7. Would you have undergone operation in the mass camp with the same amount of remuneration (Rs. 25) as given in the Primary Health Centre Yes/no.
8. Are you satisfied with the amount of cash remuneration that you received in this camp Yes/no

V1 After effects

1. Have you had any complaints before the operation Yes/no.
2. If yes, what were those complaints
3. Have you experienced any complaints after the operation? Yes/no.
4. If yes, what are those complaints:—
- swelling
 - pain at time of ejaculation
 - poor erection
 - decrease in retentive power
 - lack of sex desire
 - physical weakness
 - others (specify)
5. Have you observed the precautions after the operation as advised by doctor? Yes/no.
6. If no. why?
7. When did you resume sex life after operation?
8. Have you been given condoms after operation? Yes/no.
9. If yes, did you use them? Yes/no.
10. If no, why?
11. Can you attribute your complaints (if any) to this operation? Yes/no.
12. If yes,
- Nature of complaints
 - How can you attribute
13. Did you contact anybody (if complaints) for advice? Yes/no.
14. If yes, whom did you meet?

15. What advice you got ?

16. If not, why ?

VII Role of Family Planning staff (Medical follow up)

1. Did any family planning staff visit you after operation? Yes/no.

2. If yes, who (professionally) were they :—

(a) Profession

(b) Time of visit

(c) If yes, how ?

3. What did they do ?

4. Was their visit useful to you? Yes/no.

5. If yes, how ?

6. If not, why ?

7. What did you expect from them ?

(a)

(b)

(c)

VIII Opinion about the camp and arrangements

(a) *Publicity :*

1. What types of publicity was arranged on in the camp

2. Can you say that the camp was adequately publicised? Yes/no.

3. If no, what were the short comings

4. What are the steps to be taken to improve them ?

5. Have you learned anything more about family planning from the publicity in the camp ?

(b) *Other arrangements :*

1. Were you satisfied with the following arrangements in the camp ?

(a) Conveyance facilities

(b) Care and attention

(c) Food arrangements

(d) Service received

Satisfied/not.

Yes/no.

Yes/no.

Yes/no.

2. What are the steps to be taken to improve the arrangements to make similar camps more attractive?

(a)

(b)

(c)

(d)

IX General opinion about vasectomy operation :

1. Would you recommend the operation to your friends and relatives? Yes/no.
2. If no, why?
3. What type of changes, you feel, are needed to make vasectomy operation more acceptable?

Place:

Date:

Signature of the Investigator.

1. The first part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as $t \rightarrow \infty$. It is shown that the solutions of the system (1) tend to zero as $t \rightarrow \infty$ if and only if the matrix A is stable.

2. In the second part of the paper, the asymptotic behavior of the solutions of the system (1) is studied as $t \rightarrow \infty$ for the case when the matrix A is not stable. It is shown that the solutions of the system (1) tend to infinity as $t \rightarrow \infty$ if and only if the matrix A is not stable.

3. In the third part of the paper, the asymptotic behavior of the solutions of the system (1) is studied as $t \rightarrow \infty$ for the case when the matrix A is stable and the matrix B is not stable. It is shown that the solutions of the system (1) tend to zero as $t \rightarrow \infty$ if and only if the matrix A is stable and the matrix B is not stable.

Received April 1964

1964

1065-

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KERALA, TRIVANDRUM

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