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**BUREAU OF ECONOMICS & STATISTICS  
KERALA STATE**

**POPULATION STUDIES 126**

**A report of the Family Planning Festival  
at Trivandrum**

212  
MAY, 1972

POPULATION DIVISION  
DEMOGRAPHIC RESEARCH CENTRE



P R E F A C E

Mass vasectomy camps were conducted in Ernakulam in 1970 and the second in 1971. The achievement of the first camp was about 15,000 and the achievement of the second was about 63,000. Both camps were conducted for one month. In 1972 a one month camp was organised in Trivandrum. Like the studies conducted about acceptors in Ernakulam camps, a study of the characteristics of acceptors in Trivandrum camp is presented in this report.

The report has two main differences with those about the Ernakulam camps. One is that an attempt is made to analyse the reasons for rejections of cases registered at the camp for operation. The other is that the requisite data were collected by interviewing the persons by staff of the Department. In the Ernakulam camp the data furnished in the declaration forms were made use of.

It is hoped that this report will thus be more useful to the organisers of mass camps.

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A REPORT ON THE FAMILY PLANNING FESTIVAL, TRIVANDRUM (16.1.72 to 30.1.72)

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1. INTRODUCTION: Family planning camps on a mass scale were conducted in Ernakulam in November-December 1970 and July 1971. In the 1st camp 15005 operations and in the second camp 62902 operations were conducted. Characteristics of persons who have undergone vasectomy in these camps have been studied by the Bureau. A similar mass camp was conducted for 15 days in Trivandrum from 16-1-72 to 30-1-72. In this report the performance of the Trivandrum camp and the characteristics of the acceptors of these camps are studied.

2. ORGANISATION OF THE CAMP: The camp was conducted for 15 days from 16.1.72 to 30.1.72. The main camp was at the Tagore Centenary Theatre Trivandrum. Facilities for vasectomy were provided in the following 4 mini camps also.

1. General Hospital, Trivandrum
2. Medical College Hospital, Trivandrum
3. Central Prison Hospital, Trivandrum
4. T.B. Hospital, Pulayanarcottah, Trivandrum.

In the 1st and 2nd mini camps, cases which require hospitalisation were referred to from the main camp. The cases include Hydrocele patients in whose case Hydrocele operation was also conducted with vasectomy. In the mini camps at Central Prison and T.B. Hospital the operations were done on the inmates of these institutions.

Facilities for tubectomy were also provided in 6 hospitals in the District. The hospitals where tubectomies were conducted are the following.

1. S.A.T. Hospital, Trivandrum
2. W & C Hospital, Thycaud, Trivandrum
3. Government Hospital, Peroorkada, Trivandrum
4. " Neyyattinkara
5. " Nedumangad
6. " Chirayinkil.

Against a target of 15000 vasectomies and 500 tubectomies, 15582 vasectomies and 827 tubectomies were conducted during the period of the festival.

In the main camp 15441 operations were conducted. There are 12 C.D. Blocks 1 Corporation and 2 Municipalities in the District. A day was fixed for each of the Block and Corporation/Municipality. Persons from other areas were also accepted on the days fixed for each Block/Town.

The persons who came for the operation were to give a declaration form at the Registration Counter. The declaration form contained the particulars like age, age of wife, religion, income, education and number of children living. After the registration the persons were directed for preliminary medical check up. Unsuitable cases were rejected at this stage. Suitable cases were sent to the preparation room. After that the persons were directed to the Statistical Cell, where all the persons were interviewed and data on demographic characteristics collected. The following details were collected from the persons. Age of the person, age of his wife, religion of the person, his educational status, number of children

living, occupation and income are the items for which data were collected. This direct interviewing is certain to provide better data, than the data furnished in the declaration form. A few cases found suitable in the preliminary check up were rejected at the operation theatre.

In the case of mini camps the persons were interviewed at the respective hospitals and details xxx xxxxxxxxx were collected. We were not able to cover all the cases in the mini camps.

The acceptors were given liberal incentives valuing about Rs.75/- for vasectomy and Rs.83/- for tubectomy. In the Ernakulam camp the incentives in cash and kind to vasectomies persons valued about Rs.100/-.

**3. OBJECT OF THE STUDY:** The study is intended to assess the popularity of sterilisation among various socio economic groups and also to study the impact of the performance in averting births. The statistical cell functioning at the camp had analysed daily the characteristics like religion, age literacy level and number of children in broad groups and displayed the results. A synoptic report based on the above analysis had been prepared and submitted to the District Collector. This report aims at a more detailed analysis.

**4. REJECTED CASES:** As already mentioned a number of persons who came for vasectomy at the camp were rejected at the preliminary medical check up or at later stage. The number of rejected cases at the main camp was as large as 2764. Details of rejections at the mini camps are not available. The number of rejections at the main camp is about 15% of the total registrations. An analysis of these rejected cases according to the cause of rejection reveals interesting findings.

Table 1

Distribution of rejected cases according to reason for rejection

| Cause for rejection             | No. of rejections | Percentage |
|---------------------------------|-------------------|------------|
| 1. Hydrocele                    | 576               | 20.7       |
| 2. Hernia                       | 101               | 3.6        |
| 3. Filariasis                   | 83                | 3.0        |
| 4. Scabbies                     | 179               | 6.5        |
| 5. Unhealthy (including anemia) | 62                | 2.3        |
| 6. Only one child               | 21                | 0.8        |
| 7. Previously operated          | 439               | 15.9       |
| 8. Old age                      | 830               | 30.0       |
| 9. Other reasons                | 364               | 13.2       |
| 10. Reasons not recorded        | 109               | 4.0        |
| Total:                          | 2764              | 100.0      |

The figures in the above table reveal that the most important cause for rejection was old age 30% cases were rejected on this account. The higher incentive given at the camp might have attracted most of them. The next important cause was hydrocele. About 21% of the rejections were due to this reason. This

requires serious attention the above figure shows that above 3% of the persons registered at the camp had serious attack of hydrocele which made vasectomy operation impossible. The third important reason for rejection was previous operation. When the previous operation was detected they complained that the previous operation was not successful. But the semen examination disproved their contention. It was merely the incentive which attracted them to the camp. The analysis shows the lack of proper selection of cases by the promoters. They have indiscriminately promoted both eligible and ineligible cases.

5. AGE COMPOSITION: The age of the person undergoing the operation and his wife's age are most important factors affecting the effect of sterilisation operation. It is evident that the sterilisation of a person whose wife is nearing the end of her reproductive span has very little effect in preventing future births. Table 2 given below presents the distribution of sterilisations - both vasectomies and tubectomies - according to the age of husband and wife.

Table 2

Percentage distribution of sterilisations according to age.

| Age group    | Vasectomies   |            | Tubectomies   |            |
|--------------|---------------|------------|---------------|------------|
|              | Husband's age | Wife's age | Husband's age | Wife's age |
| 15-19        | 0.03          | 0.51       | 0.03          | 0.14       |
| 20-24        | 0.63          | 20.29      | 0.55          | 20.77      |
| 25-29        | 12.47         | 29.33      | 11.00         | 38.24      |
| 30-34        | 20.19         | 23.84      | 28.05         | 24.76      |
| 35-39        | 25.76         | 21.70      | 29.30         | 14.30      |
| 40-44        | 21.61         | 3.89       | 18.34         | 1.24       |
| 45 & above   | 17.01         | 0.37       | 11.97         | 0.41       |
| Not recorded | 0.00          | 0.02       | 0.28          | 0.14       |
| Total        | 100.00        | 100.00     | 100.00        | 100.00     |

The median age of males who have undergone vasectomy is 37.2 years and that of husbands of females who have undergone tubectomy is 36.3 years. The median ages of wives of vasectomised males and females who have undergone tubectomy are 29.5 years and 28.3 years respectively. The median age of males who have adopted vasectomy in the 1st Ernakulam camp is 39.1 years and 37.3 years in the 2nd camp. This shows that comparatively younger persons have adopted vasectomy in the Trivandrum camp.

About 60% males adopting vasectomy and about 70% husbands of females who have adopted tubectomy are below 40 years. According to the study of second camp at Ernakulam 62% persons vasectomised are below 40 years.

In the Trivandrum camp, females are seen to adopt tubectomy earlier than males adopt vasectomy. About 40% males adopting vasectomy, and 30% husbands of females adopting tubectomy are 40 years or above.



6. RELIGIOUS COMPOSITION: The distribution of sterilised persons according to religion is given in table 3.

Table 3

Percentage distribution of sterilised persons according to religion.

| Religion     | Vasectomies | Tubectomies | Trivandrum District population 1961 census |
|--------------|-------------|-------------|--|
| Hindu        | 75.3        | 75.7        | 71.2                                       |
| Christians   | 19.8        | 18.8        | 18.1                                       |
| Muslims      | 4.9         | 5.2         | 10.7                                       |
| Not recorded | 0.0         | 0.3         | 0.0  |
| Total        | 100.0       | 100.0       | 100.0                                      |

It is seen that both in respect of vasectomies and tubectomies, the percentage of Hindus is fairly higher than their percentage in the general population. The percentage of Muslims among sterilised is less than the corresponding percentage in the general population. This shows that the Muslims are yet to realise the benefits of a small family. In the case of Christians, the percentage in the general population and that among the sterilised are almost equal. The percentage of Christians among sterilised is a little higher than that in the general population.

7. EDUCATIONAL STATUS: The literacy level of the persons adopting sterilisation is an indication of the effectiveness of family planning education to the various sections of the population. The existing propaganda machinery may not be equally effective to various sections of the population. The following table presents the distribution of persons sterilised at the camp, according to educational status.

Table 4

Percentage distribution according to educational status.

| Educational status                        | Vasectomies | Tubectomies | Population in TVM. Dist. 1961 Census |                    |
|---|-------------|-------------|--------------------------------------|--------------------|
|   |             |             | Males 25-59 yrs.                     | Females 20-44 yrs. |
| Illiterate                                | 30.35       | 33.70       | 32.66                                | 54.79              |
| Literate below primary                    | 40.50       | 23.66       | 47.81                                | 32.19              |
| Above primary below middle                | 20.94       | 26.27       | 10.62                                | 7.76               |
| Above middle below matric                 | 5.39        | 7.70        | 8.91                                 | 5.26               |
| Matric and above                          | 2.04        | 5.91        | 8.91                                 | 5.26               |
| Literate-educational status not specified | 0.00        | 1.93        | ..                                   | ..                 |
| Not Recorded                              | 0.00        | 0.83        | ..                                   | ..                 |
| Total                                     | 100.00      | 100.00      | 100.00                               | 100.00             |

There may be considerable difference in the educational status distribution in 1961 and 1972. But the difference cannot be accounted fully. This, the differential acceptance by persons in the different educational strata is one possible reason.



Comparison of the distribution of males who have undergone vasectomy according to educational status with that of males aged 20-59 years shows that comparatively less males from illiterate literate below primary and matric and above group have come forward to accept the operation. In the case of females also the above holds good except in the case of matriculates and above. The possible reason may be the inadequate propaganda among the less educated and the reluctance on the part of the educated persons to adopt sterilisation in mass camps. It may be mentioned that this phenomenon is noticed in the Ernakulam camp also.

8. INCOME: Like literacy, income is also another decisive factor in influencing the decision to accept sterilisation especially when liberal incentives are offered. Table 5 gives the distribution of sterilised persons according to income.

Table 5

Percentage distribution of sterilised persons according to monthly income

| Monthly income     | Vasectomies | Tubectomies |
|--------------------|-------------|-------------|
| Less than Rs. 50/- | 2.09        | 4.40        |
| Rs. 50-99          | 45.70       | 23.66       |
| "100-149           | 28.40       | 0.96        |
| "150-199           | 14.31       | 0.14        |
| Rs. 200 and above  | 8.52        | 2.34        |
| Not Recorded       | 0.98        | 68.50       |
| Total              | 100.00      | 100.00      |

In the case of tubectomies, the information on income is available only in a small percentage of cases. About 48% of the vasectomies are done on persons with monthly income less Rs. 100/-. About 9% have monthly income Rs. 200 or above. There is substantial difference in these figures with the Ernakulam camp. In Ernakulam a very large percentage had monthly income less than Rs. 100/- and only very few reported monthly income of Rs. 200 or above. The difference between these two centres may be due to the method of data collection in the two cases. With regard to Ernakulam camp the income figures given in the declaration form was taken whereas in Trivandrum the information was collected by interviewing the person. Though any firm conclusion about the comparative popularity of vasectomy in various income groups cannot be drawn, it can be seen that the liberal incentives offered have attracted many from the lower income groups to adopt vasectomy.

9. OCCUPATION: The popularity of sterilisation among various occupational groups is studied in this section. Table 6 gives the distribution of sterilised persons according to their occupation.

Table 6

Percentage distribution of sterilised persons according to occupation.

| Occupation              | Vasectomy | Tubectomy |
|-------------------------|-----------|-----------|
| Agricultural labour     | 40.17     | 2.34      |
| Other unskilled work    | 21.80     | 23.80     |
| skilled work            | 16.30     | 21.75     |
| Professional work       | 1.42      | 1.93      |
| Cultivators and farmers | 5.22      |           |
| Traders and businessmen | 5.61      | 0.14      |

| Occupation    | Vasectomy | Tubectomy |
|---------------|-----------|-----------|
| Clerical work | 1.41      | 0.41      |
| Others        | 7.41      | 0.27      |
| No occupation | 0.15      | 67.95     |
| Not Recorded  | 0.51      | 0.41      |
| Total         | 100.00    | 100.00    |

60% of the women who have undergone tubectomy had reported no occupation. Of the remaining 32%, the majority belong to the occupation group of "other unskilled work" which includes coolies. Among the males who have undergone vasectomy about 62% belong to the group agricultural labour and unskilled work which are low income groups. Next important group is 'skilled work' which accounts for about 16%. The nature of income and occupational distributions together corroborate the general notion that the higher incentives are the main attraction for increased acceptance of sterilisation in the mass camp.

10. Number of children living: Sterilisation being a permanent method of birth control, the number of children living to a person at the time of the operation can be taken as his desired number of children. There may be cases where the person was not able to undergo the operation when the desired family size was achieved. The total number of children living and their sex-wise distribution are indicators of the desired number of children. The tables 7 to 9 given below present the percentage distribution of persons according to total number of children living and sex-wise.

Table 7

- Percentage distribution of sterilised persons according to total number of children living.

| No. of children living | Vasectomies | Tubectomies |
|------------------------|-------------|-------------|
| 1                      | 0.69        | 1.24        |
| 2                      | 24.65       | 17.05       |
| 3                      | 25.53       | 37.14       |
| 4                      | 17.53       | 20.91       |
| 5                      | 13.16       | 12.65       |
| 6                      | 8.93        | 6.83        |
| 7                      | 5.33        | 7.24        |
| 8                      | 2.54        | 0.85        |
| 9                      | 1.05        | 0.85        |
| 10                     | 0.33        | ..          |
| Above 10               | 0.14        | ..          |
| Not Recorded           | 0.02        | 0.14        |
| Total                  | 100.00      | 100.00      |



Table 8

Percentage distribution of sterilised males according to number of children living in each sex.

| No. of male children living | No. of female children living |       |       |       |      |      |      |         | Total |        |
|-----------------------------|-------------------------------|-------|-------|-------|------|------|------|---------|-------|--------|
|                             | 0                             | 1     | 2     | 3     | 4    | 5    | 6    | Above 6 |       |        |
| 0                           | ..                            | .24   | 3.84  | 2.47  | .89  | .44  | .15  | 50.08   | ..    | 8.11   |
| 1                           | .44                           | 16.19 | 9.53  | 4.01  | 2.09 | .66  | .20  | 7.14    | ..    | 33.26  |
| 2                           | 4.62                          | 11.10 | 7.28  | 3.88  | 2.02 | .69  | .27  | .08     | ..    | 29.94  |
| 3                           | 2.53                          | 4.39  | 4.43  | 2.87  | 1.49 | .48  | .13  | .01     | ..    | 16.33  |
| 4                           | 0.96                          | 1.98  | 2.34  | 1.59  | .73  | .24  | .07  | .01     | ..    | 7.92   |
| 5                           | 0.35                          | 0.84  | .95   | 0.61  | .33  | .10  | .03  | ..      | ..    | 3.21   |
| 6                           | 0.06                          | 0.26  | .29   | .19   | .07  | .03  | ..   | ..      | ..    | 0.90   |
| Above 6                     | 0.05                          | 0.10  | .06   | .04   | .04  | .01  | ..   | ..      | ..    | 0.30   |
| Not Recorded                | ..                            | ..    | ..    | ..    | ..   | ..   | ..   | ..      | ..    | 0.03   |
| Total                       | 9.01                          | 35.10 | 28.72 | 15.66 | 7.66 | 2.65 | 0.85 | 0.32    | 0.03  | 100.00 |

Table 9

Percentage distribution of sterilised females according to number of children living in each sex.

| No. of male children living | Number of female children living |       |       |       |      |      |      |         | Total |        |
|-----------------------------|----------------------------------|-------|-------|-------|------|------|------|---------|-------|--------|
|                             | 0                                | 1     | 2     | 3     | 4    | 5    | 6    | Above 6 |       |        |
| 0                           | ..                               | 0.83  | 2.20  | 3.44  | 1.51 | 0.41 | 0.14 | 0.14    | ..    | 8.67   |
| 1                           | 0.41                             | 11.56 | 13.90 | 6.19  | 2.33 | 0.28 | ..   | 0.13    | ..    | 34.80  |
| 2                           | 3.30                             | 14.72 | 7.84  | 3.31  | 1.92 | 0.41 | ..   | ..      | ..    | 31.50  |
| 3                           | 5.09                             | 4.26  | 4.68  | 2.74  | 0.70 | ..   | ..   | ..      | ..    | 17.47  |
| 4                           | 1.11                             | 1.65  | 0.95  | 0.41  | 0.28 | 0.14 | ..   | ..      | ..    | 4.54   |
| 5                           | 0.27                             | 0.82  | 0.70  | 0.41  | 0.41 | ..   | ..   | ..      | ..    | 2.61   |
| 6                           | ..                               | ..    | 0.27  | ..    | ..   | ..   | ..   | ..      | ..    | 0.27   |
| Above 6                     | ..                               | ..    | ..    | ..    | ..   | ..   | ..   | ..      | ..    | ..     |
| Not Recorded                | ..                               | ..    | ..    | ..    | ..   | ..   | ..   | ..      | 0.14  | 0.14   |
| Total                       | 10.18                            | 33.84 | 30.54 | 16.50 | 7.15 | 1.24 | 0.14 | 0.27    | 0.14  | 100.00 |

The average number of children living to sterilised males and females are 3.9 and 3.7 respectively. About 51% males and 55% females undergo the operation when they have 3 or less children living. About 18% males and 21% females undergo the operation when they have 4 living children. Thus nearabout 70% males and females have 4 or less children living. These persons can be said to have adopted the method at the appropriate time.

82% of the persons have children of both sexes. The percentage of persons who have male children only or female children only are almost equal. More than 60% have one or two children in each sex.

11. SAVING OF BIRTHS: 15582 vasectomies and 827 tubectomies have been conducted during the camp period. The age distribution of wives of sterilised males and the age distribution of sterilised females given in table 2 can be taken as the basis for the calculation. We can assume that the sterilised females and wives of sterilised males are subject to the same age specific marital fertility rate as the general population. If we take the age specific marital fertility rate available from Sample Registration (1966-67), it is estimated that 4513 births will be prevented in the year succeeding the year of sterilisation. The effect of the sterilisation in preventing births continues as long as the females are in the reproductive period and both partners survive. The effect in the succeeding years will be smaller since some of them would pass the reproductive period or would be widowed or divorced.

According to the calculations based on the above fertility rates and joint survival ratio from Regional model life tables, it is estimated that 2.32 births will be saved per sterilisation in 23 years. The age distribution of sterilised persons during 1967-69 is used for the calculation. On the basis of the above, 38069 births will be prevented by the operations in the camp in 23 years.

12. SUGGESTIONS: The demographic impact of the camp is the saving in terms of births achieved by the operations. In addition to this the propaganda for a mass camp has removed the reluctance on the part of many persons to adopt sterilisation. The incentives itself have attracted many persons. The usual incentive is insufficient to compensate the loss of wages caused by the operation.

A thorough check-up was made before the operation and about 15% of the total registrations were found not fit for operation. This points out the need for giving proper directions to the promoters who are mainly staff of the Health Department. They are to be instructed to promote only eligible cases.

The mass camps function for only a short period. After that there should be arrangements for the proper follow up of cases. The promoters may be made responsible for rendering necessary assistance to those who have any complications after the operations. Arrangements are necessary for getting medical aid to those operated at the camp, at the nearest medical Institution.

13. SUMMARY AND CONCLUSIONS: There was proper selection of cases in the camp and about 15% cases found ineligible were rejected. About 50% wives of vasectomised males and about 60% tubectomies females are below 30 years.

Sterilisation has not become as popular among Muslims as other religious groups. Comparatively less percentage of person from the lower education strata adopt sterilisation.

A higher percentage of persons from the lower income and occupation strata undergo sterilisation operation in the camp.

About 51% males and 55% females undergo the operation when they have 3 or less children living.

It is estimated that about 38100 births have been saved by the operations conducted at the camp in the next 23 years.



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