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PREFACE

The Cholera Research Laboratory (CRL) operates under a bilateral project agreement between the Governments of Bangladesh and the United States of America. Research activities of CRL center on the interrelationships between diarrheal disease, nutrition, fertility and their environmental determinants. CRL issues two types of papers: scientific reports and working papers which demonstrate the type of research activity currently in progress at CRL. The views expressed in these papers are those of authors and do not necessarily represent views of Cholera Research Laboratory. They should not be quoted without the permission of the authors.

This paper was presented at the seminar on "Sterilization Follow-up and Oral Contraceptive Studies" organised by the Johns Hopkins University Fertility Research Project and the Bangladesh Fertility Research Programme at Dacca, July 8, 1977.

ABSTRACT

This paper reports some findings of a follow-up survey conducted among 185 vasectomy and 136 tubectomy acceptors from the Matlab Cholera Research Laboratory Field Surveillance Area. The clients were sterilized during the eight-week nation-wide intensive sterilization campaign, beginning from February, 1977 and were followed-up within two weeks following the operation.

The findings of the survey showed that the sterilization campaign attracted clients mostly from the lower socio-economic stratum of the country. The mean age for Vasectomy acceptors was 49.3 years and the mean number of their living children 5.2. The corresponding figures for tubectomy acceptors were 34 and 5 respectively.

The clients seemed in general to be satisfied with the results of tubectomy and vasectomy procedures, management of the clinics and services offered during the campaign. Community support was found to be more favourable toward tubectomy than toward vasectomy.

Marked discrepancies in age reporting on the part of vasectomy acceptors were observed. The elderly vasectomy acceptors were found to have systematically understated their own age, the age of their wives and that of their youngest child. A combination of factors like, monetary incentive, pressure on workers for meeting the target and inability to check fecundity of the wives resulted in at least 25 percent of vasectomy clients as ineligible for sterilization.

INTRODUCTION

The eight-week nation-wide intensive sterilization campaign that was held in March and April, 1977 in 150 of the country's 435 thanas constituted a multipronged strategy based on higher than usual compensation, coupled with mass education and pooling of all technical and administrative resources at one place and at a point of time. The result of such concentrated effort was amazing. The number of sterilizations - 50,068 vasectomies and 25,784 tubectomies - done during this campaign period exceeded the national target fixed at 61,260.

The Cholera Research Laboratory (CRL) which has been conducting a house-to-house contraceptive distribution programme in its field surveillance area at Matlab since October, 1975 undertook a follow-up survey of the clients underwent sterilization from its study area during the campaign. The purpose of the follow-up survey was to learn about socio-demographic characteristics of the sterilization acceptors and their receptivity to the procedures.

Methodology

A survey team consisting of experienced male interviewers of the CRL copied address and other relevant information from the records maintained by the thana family planning officials during the campaign and made a follow-up home visit to each client within two weeks following the operation. The interviewers with the help of a questionnaire schedule elicit information about the nature of post-operative complaints, motivating factors for acceptance of sterilization, impression about sterilization clinics and satisfaction with the procedures. Two members of the same bari and two from the adjacent bari* of each client were also interviewed to know their reactions toward acceptance of sterilization by their neighbour.

A total of 131 out of 185 vasectomy acceptors and 131 out of 136 tubectomy acceptors from the CRL field surveillance area were interviewed. Socio-demographic information from the records of the thana family planning

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* A group of usually 5-6 patrilineally related households sharing a common courtyard.

office was checked against the information available in the CRL census records for confirmation and comparison. Data from the latter source were considered as much more reliable than that from the former source as in the latter case there was little chance of purposive misreporting and that while interviewing different techniques to elicit correct information from the respondents were used.

In the subsequent sections of this report selected socio-demographic characteristics of the study population and their experiences regarding sterilization are discussed in brief. The tables containing more detailed information supporting the presentation in the text are given in the appendix.

FINDINGS

Socio-Demographic Characteristics (Tables 1, 2, 3, 4)

The vast majority of the vasectomy acceptors (about 90%) as well as the husbands of the tubectomy acceptors (about 86%) were day labourers and poor cultivators. Like the general population of the Matlab field surveillance area, about half of the vasectomy acceptors and almost the same proportion of the husbands of the tubectomy acceptors were reported to be illiterate. Only about 5% of the vasectomy acceptors and 7% of the husbands of the tubectomy acceptors were found to have passed beyond secondary school.

The mean age for vasectomy acceptors was 49.3 years, almost half being in the age group 50 years and above, had an average of 5.2 living children and wives of average age 38 years at the time of accepting sterilization. The mean age for tubectomy acceptors was 34 years, about one-fifth were 40 years and above, and had a mean number of 5 living children.

6% of the vasectomy acceptors and 0.7% of the tubectomy acceptors reported to have no son at the time of sterilization. This is somewhat unexpected, so far son preference in an agrarian society like Bangladesh is concerned. However, it might happen for the reason that the clients believed to have their reproductive period over.

Motivating Factor for Acceptance of Sterilization (Table 5)

Both the vasectomy and tubectomy acceptors were found quite well aware of incentive money associated with the sterilization before hand. However, the main motivating factor for acceptance of sterilization was reported to

terminate child bearing. The incentive fee of Tk. 50/- in case of vasectomy and Tk. 40/- in case of tubectomy was undoubtedly attractive enough to precipitate action among them but - in the great majority of the cases, not a sufficient reason for accepting sterilization.

Source of Information and Suggestion (Tables 6, 7, 8)

Over 70% of the vasectomy as well as the tubectomy acceptors reported family planning workers as their source of information and suggestion for acquiring sterilization. In the remaining cases, the advisers were from the known circles of the acceptors like friends, neighbours, relatives, union parishad members and previous acceptors. This suggests that community education about sterilization by more wide-spread so as to gear-up such influentials to perform their informal educational and motivational roles more efficiently.

The need of community education is further justified by the fact that a significant proportion of the neighbours of the acceptors reported disapproving sterilization on religious ground which, we assume, stemed from their ignorance about birth control methods. The religious objection was found more among males (57%) than among females (43%). This difference is somewhat unexpected, given the males are more educated and exposed to mass media than the females, and need further research.

The findings regarding information disseminated to the clients about sterilization suggest the importance of further training to grass-root level workers in order to minimise the chances of misinterpretation or misrepresentation of the nature and implications of sterilization. About 34% of the vasectomy acceptors and 12% of the tubectomy acceptors reported that sterilization was explained to them as only an injection by the family planning workers.

Satisfaction with Sterilization (Tables 9, 10)

The future sterilization as a successful method of contraception lies largely in the post-operative feelings of the acceptors. The feelings about sterilization seem to be favourable because 95% of the vasectomy acceptors and 96% of the tubectomy acceptors expressed their satisfaction for having the operation, i.e. they had got a method of birth conctol they were in need of.

Those who expressed dissatisfaction with sterilization generally did so for decreased work capability due to physical weakness resulting from post-operative complications.

However, no vasectomy or tubectomy acceptor reported experiencing any serious complication within 2 weeks of the operation, except some minor complaints like fever, swelling, weakness and dizziness.

Impression about Clinic Management and Services Offered (Tables 11, 12)

The management of sterilization clinics and the quality of services reported to be satisfactory to most of the clients. However, the findings suggest more attention of family planning programme administrators in ensuring post-operative follow-up visits and care to keep the morale of the acceptors high. No follow-up visit was made by family planning workers to 73% of the vasectomy acceptors and 53% of the tubectomy acceptors, in spite of the fact that the Family Planning Directorate instructed them to make at least one follow-up visit to each vasectomy acceptor within 48 hours of the operation and to each tubectomy acceptor within one week of the operation.

Five percent of the tubectomy acceptors were found not to have reported back to the clinic for removing of stitches even after 2 weeks of their operation. Illness of children, inability of husband or other family members to accompany the acceptors to the clinic, and inability to bear transportation cost were reported as the reasons for not visiting the clinic second time.

Demographic Effectiveness

The mean age for the wives of the vasectomy acceptors was found tobe 38 years and that for the tubectomy acceptors 34 years. This means that each vasectomy may,provide an average of 6 couple-years of protection and each tubectomy 10 couple-years of protection, if the female reproductive period is assumed to cease at age forty-four years. These figures are of course not corrected for death of either spouse, or separation for other causes during this time span, and based on the assumption that every operation is successful and irreversible.

The low couple-years of protection in case of vasectomy is obviously the result of over-representation of elderly couples among the vasectomy acceptors. About half of the vasectomy acceptors were of age 50 years and above (Table 3) having a wife of age beyond 40 years in 70% cases (Table 14).

According to the population growth estimate (PGE), the reproductive behaviour of women differ by age. "Specially, women under age 20 account for one-fifth of the estimated total number of livebirths in East Pakistan during 1963-65. ..... not quite one half of the East Pakistan total births was accounted for women under age 25. ..... only one-tenth of the total number of livebirths in East Pakistan occurred to women 35 years and older, and by 40 East Pakistan women made virtually no further contribution to the total number of livebirths[1]".

On the basis of these evidences and allowing the average difference of age between husband and wife it can be assumed that vasectomies done on clients 50 years and over cannot contribute much towards birth reduction.

The justification made by the family planning personnel for the inclusion of elderly people for vasectomy was that these clients had young wives as a result of remarriage and concomitently had a recent livebirth as evidenced by the age of their youngest child.

However, the findings of the present survey did not appear to support such explanation. The findings showed that although about 34% of the clients age 50 years and over had married more than once there was no evidence from their age distribution to suggest that all or most of them had young wives (Tables 13, 14). It may be assumed that most of the subsequent marriages took place in the early lives of these vasectomy clients due to high maternal mortality. Since the longivity of males is also not very high it may be that widowers had married widows.

Similarly, the findings of the survey did not show any positive evidence that the elderly clients had a recent live birth at the time of accepting vasectomy. About 18% of the vasectomy acceptors were found to have no child of age less than 10 years and about over 40% had no child of age below 6 years (Table 17).

More surprising is the fact that the elderly clients were found to have systematically understated their own age, the age of their wives and that of their youngest child at the time of acquiring sterilization. Thus, while

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1 Seltzer, op. cit. pp. 12-13.

according to CRL census data about 50% of the vasectomy acceptors were of age 50 years and over, 38% had wives of age 40 years and over, and 43% had their youngest child 5 years and over, the corresponding figures were calculated tobe 16%, 3% and 1% respectively as per information recorded by family planning personnels (Tables 15, 16, 17).

Particularly striking is the fact that almost one-fourth of the vasectomy acceptors were not actually in need of sterilization. This is because about 19% of the wives of the vasectomy acceptors reported to have reached menopause, while another 6% were found to have no wife at the time of accepting sterilization (Table 18). During follow-up interview, vasectomy on these persons was not only found lacking endorsement from their neighbours but also found to have caused adverse reaction among the neighbours.

One encouraging finding of the present survey is that the average tubectomy acceptors were well within their reproductive period as evidenced by the following table. Unlike vasectomy acceptors, very few were over-aged, i.e. 45 years and above, or tried to understate their age. In addition, the mean age (2.6 years) for youngest child of the tubectomy acceptors suggests a further reduction in the present family size from infant and child mortality is likely.

Conclusions

Recognizing the exploratory nature of the study, the limited nature of the sample involved, and the fact that some of the findings need further investigation, it would appear that the receptive population, with reference to sterilization, are the middle age couples who have probably completed the bulk of their child bearing period, have an average of more than 5 living children and have come largely of poor cultivators and landless agricultural labourers with little or no education. Socio-demographic characteristics of the study clients were almost similar to those of clients from a national sample reported by the Government*.

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* Khan, A.R., Summary of the Evaluation Study of the Intensive Sterilization Programme Presented at Seminar on Sterilization Follow-up and Oral Contraceptive Studies, JHUFRP and the BFRP, Dacca, July 8, 1977.

The clients seemed in general to be satisfied with sterilization procedures, management of clinics and services offered during the campaign. However, interviewers observed some confusions and doubts among the clients about after-effects of sterilization. There is a definite need for long-term follow-up study to assess psycho-sexual and physical effects of sterilization.

Although less than 3 percent of the men indicated that monetary incentive was their reason for accepting vasectomy, this was likely the motivating force for most of the inappropriate vasectomies. Combinations of incentives, targets and the inability to check reproductive status, resulted in at least 25 percent of vasectomy procedures being inappropriate. Proper implementation and utilization of couple registration system may be helpful in screening clients for suitability of sterilization in future.

Wide community support for tubectomy over vasectomy as revealed from the findings of this survey indicates future prospect of the former method. However, like vasectomy, late timing for tubectomy in relation to age and parity of the acceptors casts doubts about its contribution to country's births reduction. In absence of estimation on births averted by sterilization it can be said that unless there is a concommitant trend toward earlier timing, even if the prevalence of sterilization were to increase, its demographic effectiveness would not be great. Therefore, to bring down the birth rate quickly as is the need of the hour it might be more efficient and economical to employ all resources of the sterilization programme to couples who are still in highly fertile age group and have just attained their desired family size.

APPENDIX

All the tables do not contain the same sample size as in some cases information for every client was not available and, therefore, excluded from the calculation.

TABLE 1

PERCENTAGE DISTRIBUTION OF VASECTOMY CLIENTS AND HUSBANDS OF TUBECTOMY CLIENTS ACCORDING TO THEIR PRIMARY OCCUPATION

Occupation	Vasectomy clients N = 125	Tubectomy clients N = 119
Agricultural landowners	37.6	29.4
Landless agricultural labourers	41.6	33.6
Non-agricultural labourers	8.0	16.0
Businessmen	3.2	5.0
Service employees	2.4	7.6
Boatmen	3.2	6.7
Disabled	1.6	-
Other occupations	2.4	1.7
TOTAL	100.0	100.0

TABLE 2

PERCENTAGE DISTRIBUTION OF VASECTOMY CLIENTS AND HUSBANDS OF TUBECTOMY CLIENTS ACCORDING TO THEIR EDUCATIONAL ATTAINMENTS

Educational Attainments	Vasectomy clients N = 121	Tubectomy clients N = 118
No formal education	50.4	45.8
Maktab	9.1	11.0
I - V	20.7	22.0
VI - IX	14.9	13.6
Matric & above	4.9	7.6
TOTAL	100.0	100.0

TABLE 3

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THEIR AGE AT THE TIME OF STERILIZATION

Age (in years)	Vasectomy clients N = 182	Wives of Vasectomy clients N = 177	Tubectomy clients N = 134
20 - 24	-	2.8	3.7
25 - 29	-	8.5	17.2
30 - 34	3.3	26.6	33.6
35 - 39	13.2	24.3	25.4
40 - 44	17.0	15.2	14.2
45 - 49	17.0	11.9	5.2
50 - 54	17.0	[	0.7
55 - 59	10.4	10.7	-
60+	22.0	]	-
Total	99.9	100.0	100.0
$\bar{X}$	38.0	49.3	34.0

TABLE 4

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THE NUMBER OF THEIR PRESENT LIVING CHILDREN

No. of Living Children	Vasectomy clients N = 183	Tubectomy clients N = 136
1 son only	0.5	-
2 or more than 2 children having no sons	5.9	0.7
2 children having at least one son	4.4	2.2
3 children having at least one son	8.8	15.4
4 children having at least one son	17.6	20.6
5 children having at least one son	22.9	23.5
6 children having at least one son	18.0	22.0
7 children having at least one son	12.0	7.3
8+ children having at least one son	9.7	8.0
TOTAL	99.8	99.7
$\bar{X}$	5.2	5.0

TABLE 5

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THEIR REASONS FOR ACQUIRING STERILIZATION

Reasons for Acquiring sterilization	Vasectomy clients N = 131	Tubectomy clients N = 131
To stop child birth	85.5	57.2
Better care for present children	0.8	2.3
Economic reason	0.8	11.5
Monetary incentive	2.3	-
To stop child birth and better care for present children	4.6	14.5
To stop child birth and monetary incentive	3.8	-
Other reasons	2.2	14.5
TOTAL	100.0	100.0

TABLE 6

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THE PERSONS WHO ADVISED THEM TO COME TO THE CLINIC

Persons who advised the clients to come to the clinic	Vasectomy clients N = 131	Tubectomy clients N = 131
Self	-	1.5
Family planning workers	71.0	72.0
Wife/Husband	-	3.8
Relatives	4.6	1.5
Neighbours/friends	14.5	1.5
Union parishad chairman/member	3.8	9.9
Other clients	3.0	3.8
Other unspecified persons	3.0	5.3
TOTAL	99.9	99.8

TABLE 7

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THE EXPLANATIONS OF STERILIZATION BY THE PERSONS WHO ADVISED THE CLIENTS TO COME TO THE CLINIC

Explanations	Vasectomy clients N = 131	Tubectomy clients N = 131
Nothing explained	2.3	1.5
Injection	33.6	12.2
Operation	58.0	84.0
Injection and operation	5.3	2.3
Other	0.8	-
TOTAL	100.0	100.0

TABLE 8

PERCENTAGE DISTRIBUTION OF NEIGHBOURS ACCORDING TO THEIR OPINIONS ABOUT ACCEPTANCE OF STERILIZATION BY THE CLIENTS

Opinions	Vasectomy clients N = 143	Tubectomy clients N = 243
Positive	23.2	42.7
Positive, although considered it against God's will	12.6	20.2
Negative	6.2	10.4
Negative, considered it as against God's will	44.7	23.0
Negative, because clients were not eligible	11.9	1.2
No opinion	1.4	2.5
TOTAL	100.0	100.0

TABLE 9

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THEIR SATISFACTION OF HAVING THE PROCEDURE

Response	Vasectomy clients N = 131	Tubectomy clients N = 131
Satisfied	95.4	96.2
Not satisfied	4.6	3.8
TOTAL	100.0	100.0

TABLE 10

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THE TYPES OF POST-OPERATIVE COMPLICATIONS THEY EXPERIENCED

Complaints	Vasectomy clients N = 131	Tubectomy clients N = 131
Pain	81.7	93.1
Fever	33.6	54.9
Drainage from wound	21.4	14.5
Weakness and dizziness	9.2	28.2
Others (like burning sensation, cough, etc.)	3.8	8.4
No complaints	16.0	3.8
TOTAL	165.7	202.9

(% exceeds 100 as some clients gave more than one response).

TABLE 11

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THEIR LEAST LIKED THINGS IN THE CLINIC

Least liked things	Vasectomy clients N = 131	Tubectomy clients N = 131
Care in the clinic	1.5	-
Behaviour of clinic personnel	0.8	0.8
Sleeping arrangement	-	3.8
Food	-	19.8
Entertainment	3.8	-
Nothing disliked	93.9	75.6
TOTAL	100.0	100.0

TABLE 12

PERCENTAGE DISTRIBUTION OF STERILIZATION CLIENTS ACCORDING TO THE FREQUENCY OF FOLLOW-UP VISITS MADE BY FAMILY PLANNING PERSONNELS WITHIN TWO WEEKS AFTER THE OPERATION

Follow-up visit	Vasectomy clients N = 131	Tubectomy clients N = 131
Once	5.3	19.1
Twice	9.9	10.7
Thrice or more	11.5	16.8
No visit	73.3	53.4
TOTAL	100.0	100.0

TABLE 13

AGE SPECIFIC PERCENTAGE DISTRIBUTION OF 174 VASECTOMY CLIENTS ACCORDING TO THEIR FREQUENCY OF MARRIAGE

Age (in years)	Number of times married		Total	
	Once	More than once	No.	%
25 - 29	100.0	-	2	100.0
30 - 34	80.0	20.0	5	100.0
35 - 39	66.6	33.3	21	99.9
40 - 44	77.4	22.6	31	100.0
45 - 49	69.7	30.3	33	100.0
50 - 54	69.3	36.7	30	100.0
55 - 59	55.6	44.4	18	100.0
60+	73.5	26.5	34	100.0
Percent total	69.5	30.5		
N	(121)	(53)	174	100.0

TABLE 14

PERCENTAGE DISTRIBUTION OF 176 VASECTOMY CLIENTS ACCORDING TO THEIR OWN AGE AND WIVES' AGE

Husband's age	Wives' Age							No.	%
	20-24	25-29	30-34	35-39	40-44	45-49	50+		
25 - 29	100.0	-	-	-	-	-	-	2	100.0
30 - 34	-	80.0	20.0	-	-	-	-	5	100.0
35 - 39	4.5	40.9	54.5	-	-	-	-	22	99.9
40 - 44	-	6.7	60.0	26.6	6.7	-	-	30	100.0
45 - 49	3.0	-	27.3	51.5	18.2	-	-	33	100.0
50 - 54	3.2	-	12.9	35.5	38.7	9.7	-	31	100.0
55 - 59	-	-	5.6	16.7	22.2	50.0	5.5	18	100.0
60+	-	-	5.7	8.6	8.6	25.7	51.4	35	100.0
Percent total	2.8	8.5	26.7	23.9	15.3	11.9	10.8		
N	(5)	(15)	(47)	(42)	(27)	(21)	(19)	176	100.0

TABLE 15

COMPARISON BETWEEN RECORDED AGE AND CRL CENSUS AGE OF 182 VASECTOMY CLIENTS

Age (in years)	Recorded No.	Recorded %	CRL Census No.	CRL Census %	Percentage point of difference
Below 30	1	0.5	-	-	+ 0.5
30 - 34	9	5.0	6	3.3	+ 1.7
35 - 39	34	18.6	24	13.2	+ 5.4
40 - 44	61	33.5	31	17.0	+ 16.5
45 - 49	48	26.4	31	17.0	+ 9.4
50 - 54	23	12.6	31	17.0	- 4.4
55 - 59	4	2.2	19	10.4	- 8.2
60^{+}	2	1.1	40	22.0	- 20.9
Total	182	99.9	182	99.9	Δ = 33.5
$\bar{X}$	43.2		49.3		

TABLE 16

COMPARISON BETWEEN RECORDED AGE AND C.R.L. CENSUS
AGE OF VASECTOMY CLIENTS' WIVES

Age (in years)	Recorded		CRL Census		Percentage point of difference
	No.	%	No.	%	
20 - 24	5	2.8	5	2.8	+ 0.0
25 - 29	43	24.3	15	8.5	+15.8
30 - 34	73	41.2	47	26.6	+14.6
35 - 39	51	28.8	43	24.3	+ 4.5
40 -44	5	2.8	27	15.2	-12.4
45 - 49	-	-	21	11.9	-11.9
50^{+}	-	-	19	10.7	-10.7
Total	177	99.9	177	100.0	Δ = 35.0
$\bar{X}$	32.2		38.0		

TABLE 17

COMPARISON BETWEEN RECORDED AGE AND C.R.L. CENSUS AGE OF THE YOUNGEST CHILD OF VASECTOMY CLIENTS

Age (in years)	Recorded		CRL census		Percentage point of difference
	No.	%	No.	%	
Less than 1	48	26.7	34	18.9	+ 7.8
1 - 2	55	30.6	17	9.4	+21.2
2 - 3	46	25.6	23	12.8	+12.8
3 - 4	27	15.0	17	9.4	+ 5.6
4 - 5	2	1.1	11	6.1	- 5.0
5 - 6	1	0.5	13	7.2	- 6.7
6 - 7	-	-	13	7.2	- 7.2
7 - 8	1	0.5	9	5.0	- 4.5
8 - 9	-	-	6	3.3	- 3.3
9 - 10	-	-	5	2.8	- 2.8
10^{+}	-	-	32	17.8	-17.8
Total	180	100.0	180	99.9	Δ = 47.4
$\bar{X}$	1.9		4.8		

TABLE 18

PERCENTAGE DISTRIBUTION OF VASECTOMY CLIENTS ACCORDING TO THE MENSTRUAL STATUS OF THEIR WIVES

Menstrual Status	No.	%
Post-partum Amenorrhea	29	24.4
Currently menstruating	54	45.4
Menopause	22	18.4
Currently pregnant	7	5.9
No wife	7	5.9
TOTAL	119	100.0

TABLE 19

COMPARISON BETWEEN RECORDED AGE AND C.R.L. CENSUS
AGE OF TUBECTOMY CLIENTS, THEIR HUSBANDS AND YOUNGEST CHILD

Age (in years)	Recorded		CRL Census		Percentage point of difference
	No.	%	No.	%	
Tubectomy clients					
Below 30	31	23.1	28	20.9	+ 2.2
30 - 39	100	74.6	79	58.9	+15.7
40 -44	3	2.2	19	14.2	-12.0
45+	-	-	8	6.0	- 6.0
Total	134	99.9	134	100.0	Δ=18.0
Husbands:					
Below 40	32	24.6	35	26.9	- 2.3
40-49	93	71.5	61	46.9	+24.6
50 - 54	5	3.8	21	16.2	-12.4
55+	-	-	13	10.0	-10.0
Total	130	99.9	130	100.0	Δ = 24.7
Youngest child:					
Less than 1	57	42.5	48	35.8	+ 6.7
1 - 3	53	39.6	48	35.8	+ 3.8
3 - 5	20	14.9	18	13.4	+ 1.5
5+	4	3.0	20	14.9	-11.9
Total	134	100.0	134	99.9	Δ = 12.0

CRL publications can be obtained from Publications Unit, Cholera Research Laboratory, G.P.O. Box 128, Dacca - 2, Bangladesh.

List of current publications available:

A. CRL Annual Report 1976

CRL Annual Report 1977

B. Working Paper:

No. 1. The influence of drinking tubewell water on diarrhea rates in Matlab Thana, Bangladesh by George T. Curlin, K.M.A. Aziz and M.R. Khan.

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