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Family Planning Programme : Role of Services

IN order to stabilise the growth of population over a reasonable period of time, Government of India has accorded a high priority to the family planning programme. The Indian family planning programme, initiated as far back as 1952, has grown manifold during more than three decades of its implementation. From a small network of 725 primary health centres (PHCs) established by the end of first five year plan, the number of rural family planning centres (RFPCs) located at the PHCs had gone up to 5433 by 1983, the number of sub-centers had grown from 17,521 at the end of the third plan to 65,643 by 1983. Improvement in the family planning facilities in the urban areas has been equally impressive; by 1983, 2583 urban family welfare centres were established. Rise in plan outlays on the family planning programme has been spectacular. From an outlay of Rs. 6.5 million for the first plan it has increased to Rs. 10.10 billion for the sixth plan.

Given the size of increase in the infrastructure and financial outlay of the programme, one could expect its performance to be equally impressive. However, the data show that upto March 84, only 29.2 percent of eligible couples were effectively protected against the pregnancy.

The targets set for the reduction in the birth rate in successive plans (from fourth plan onwards) were continuously modified due to the lack of success of the programme in achieving the desired level of contraceptive prevalence. If the current trend continues, the target of achieving 60 per cent eligible couples practicing effective contraception by the end of present century, appears to be too distant.

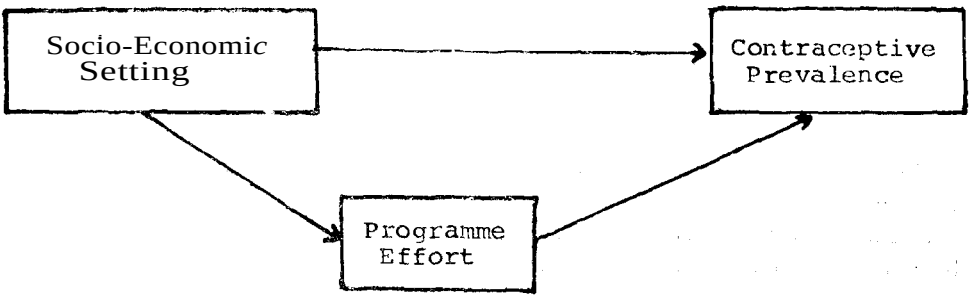
Now an obvious question arises, why, inspite of its vast infrastructure, manpower, and investment, the programme achievements fell short of the target ?

What is lacking in the programme efforts : adequate coverage of population, financial resources ? Present paper attempts to answer these questions.

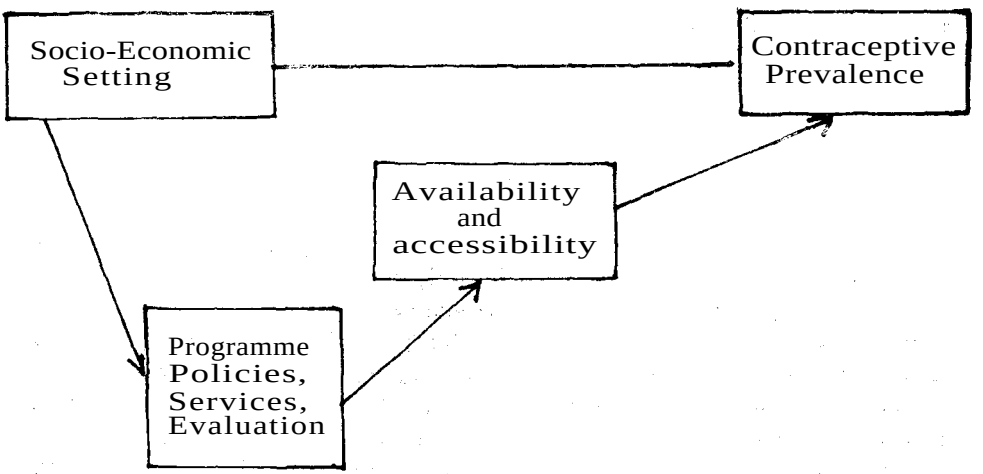
Approach

In a recent paper, Lapham and Mouldin (1985) have postulated that the acceptance of contraception is based on two components, (i) socio-economic setting, and (ii) Programme effort. They have presented two simplified versions of the framework for understanding the effect of programme effort on contraceptive prevalence.

Version-1



Version-II



They have argued that "the socio-economic setting explains a substantial part of contraceptive prevalence, but not all. If programme effort is also considered the 'explaining power' increases significantly. The argument is that there is a

Statistically significant net effect of programme effort on contraceptive prevalence over and above that of socio-economic setting, as measured by standard variables and their various combinations. Moreover, if one divides the programme effort in two parts—one that summarises policies, resources, services and related activities, plus the extent to which evaluation is used, and another that captures the availability and accessibility component, the relationship can be specified as indicated in version II".

Simmons *et al.* (1983) have also highlighted the importance of programme effort in studying fertility behaviour. They have developed an expanded Freedman's model for the analysis of fertility levels, wherein public policy and population programmes were important constituents.

In India, which is characterised by large differences in the socio-economic settings, it is normal to expect differences in the contraceptive prevalence. This phenomenon is very much evident in Table 1, which shows the proportion of eligible couples protected by various family planning methods in different states of India. According to this Table, highest couple protection rate was in Maharashtra (48.1 percent) and the lowest in Uttar Pradesh (15.5 percent). It is true that differences in contraceptive prevalence rates are to a large extent explained by socio economic settings, but as argued by the Lapham and Mauldin and Simmons *et al.*, programme efforts are also crucial in studying these differences.

The problem relating to the role of programme performance has been studied here from two different perspectives. In the first instance, a macro-level analysis of the contraceptive prevalence has been attempted, wherein three important inputs in the programme are compared with the programme performance for the 14 major states of India for whom the data are comparable. In the second approach, these relationships are studied at the micro-level using the data available from a family planning evaluation study conducted by the Population Research Centre, Chandigarh, in 1981 in one district of Punjab.

The variables reflecting the inputs in the programme are per-capita expenditure on family welfare, population covered per family planning field worker (ANM) and, population covered per family planning centre For contraceptive prevalence, two indices, namely proportion of couples effectively protected and sterilization acceptance rate, are considered.

Findings

The first component of the programme effort considered in the present study is the per-capita expenditure on family welfare activities. The data are available for the past 3 years i.e., 1981-82, 1982-83 and 1983-84. Table 2 presents the average per-capita expenditure on family welfare in 14 major states for these years. Average sterilization acceptance rates (per 1000 population) for corresponding years are also presented in this table. A comparison

TABLE 1—FAMILY WELFARE PROGRAMME PERFORMANCE (COUPLES EFFECTIVELY PROTECTED AS ON 31ST MARCH 1984)

State	Sterilization		IUD		Other Methods		All Methods	
	Couple currently and effectively protected	Percent protected	Effectively protected	Percent protected	Effectively protected	Percent protected	Effectively Protected	Percent protected
Andhra Pradesh	2,933.794	28.8	74,459	0.7	98,944	1.0	3,107,197	30.5
Bihar	2,045,572	14.8	106,715	0.8	40.438	0.3	2,192,725	15.8
Gujarat	2,040,846	34.2	147,810	2.5	179.486	3.0	2,368,142	39.7
Haryana	602,874	27.1	122,039	5.5	170,043	7.6	894,956	40.2
Karnataka	1,669,413	25.7	143,625	2.2	80,687	1.2	1,093,725	29.2
Kerala	1,294,024	34.0	56,752	1.5	26,862	0.7	1,357,638	36.3
Madhya Pradesh	2,327,766	23.6	129,805	1.3	222,526	2.3	2,680,097	27.2
Maharashtra	4,492,579	39.4	631,413	5.5	361,323	3.2	5,485,315	48.1
Orissa	1,311,954	27.0	62,061	1.3	71,780	1.5	1,446,795	29.8
Punjab	699,020	27.5	267,651	10.5	125,112	4.9	1,091,783	42.9
Rajasthan	1,069,386	16.2	52,379	0.8	57,780	0.9	1,179,545	17.9
Tamil Nadu	2,620,725	30.6	86,292	1.0	44,776	0.5	2,751,793	32.1
Uttar Pradesh	2,170,137	10.4	518,159	2.5	548,044	2.6	3,236,340	15.5
West Bengal	2,304,441	26.2	73,906	0.8	84,357	1.0	2,462,704	28.0
India	9,937,030	23.7	2,678,586	2.2	4,384,007	3.3	36,435,623	29.2

TABLE 2—AVERAGE ANNUAL PER-CAPITA EXPENDITURE ON FAMILY WELFARE AND AVERAGE ANNUAL STERILIZATION ACCEPTANCE RATE (1981-84)

Stale	*Per-Capita Expenditure* (Rs.)	*Sterilization Acceptance Rate per 1000 Population*
Andhra Pradesh	4.61	6.26
Bihar	2.77	4.32
Gujarat	6.05	6.99
Haryana	4.43	6.01
Karnataka	3.24	5.93
Kerala	3.10	5.86
Madhya Pradesh	3.18	5.56
Maharashtra	4.29	9.39
Orissa	6.21	5.50
Punjab	4.20	6.96
Rajasthan	3.32	4.80
Tamil Nadu	3.22	6.55
Uttar Pradesh	3.96	2.91
West Bengal	2.71	5.24

Coefficient of correlation : +0.29

between the two variables indicates that certain states with higher per-capita expenditure on family welfere have higher sterilization acceptance rates. But this pattern is not consistent for all the states. For example, Maharashtra with a moderate level of expenditure, has achieved the highest acceptance rate for sterilization. The same pattern is observed in Punjab, Tamil Nadu and West Bengal. On the other hand, Orissa with highest per-capita expenditure has moderate level of sterilization acceptance rate. The correlation coefficient between the per-capita expenditure and sterilization acceptance rate is +0.29 which is found insignificant by a '7' test.

On the basis of above findings it can be said that though the financial inputs has a positive effect on the programme performance, the relationship is comparatively weak and can not be considered as the cause of variation in the contraceptive prevalence.

The second input variable considered in the present study is the family planning field workers and extent of population covered by each one of them. In the extention approach adopted for the family planning programme, family planning field workers seek the contact with the population, rather than wait for the people to approach family planning centres. Therefore, the job of family planning field workers requires them to contact villagers in their homes/ fields and establish rapport for the purpose of instilling family planning habits. In this process, the acceptance of fertility control measures depends to a large extent on coverage of population by the field workers and efforts made by them to motivate people for accepting family planning methods. Among the various categories of health workers, role of ANMs (female health workers) is the most important in this regard.

To get a more precise picture of the effectiveness of the field workers, instead of population covered, married couples with wives in the reproduction age group (15-44 years) are considered and its association with the proportion of couples effectively protected is discussed (Table 3). The Table shows that by and large, states with better coverage of couples by the ANMs have a higher level of couple protection rate. Few exceptions are states like Uttar Pradesh, Rajasthan and Karnataka, where inspite of better coverage of couples by the ANMs, couple protection rate is low. The coefficient of correlation between the two variables is —0.44 which is found to be statistically significant (at 10 percent level) by a T' test.

In other words, effective coverage of population or eligible couples by the ANMs positively influences the programme performance. Variations in the contraceptive prevalence rates in various states to some extent can be explained by the coverage of population by the field workers.

The third programme effort variable used in the present study, is the population coverage of the clinical services provided at the family planning centres (FPC). The index devised to study the coverage of population by the FPC, is the number of married couples covered per FPC. The programme performance is measured by the proportion of couples effectively protected against contraception. (Table 3). The table shows that in general, states with better coverage of married couples by the FPCs, have higher level of couple protection rate. In this case, the two exceptions are Uttar Pradesh and Rajasthan. The correlation coefficient between the two variables is —0.48, which is found to be statistically significant (at 5 percent level) by a *'T'* test. From this analysis it is apparent that the effective coverage of population by the FPCs, positively contributes in the programme performance.

Thus, programme effort in terms of coverage of population by the field workers and availability of clinical services emerges as a major contributing factor in programme performance. Expenditure on family welfare, though positively related with the programme performance can not be considered as a major contributing factor. It also suggests that the demand for higher out-

TABLE 3—MARRIED COUPLES COVERED PER ANM, MARRIED COUPLES PER FAMILY PLANNING CENTRE (FPC) AND PROPORTION OF COUPLES EFFECTIVELY PROTECTED BY CONTRACEPTION

State	*No. of Married Couples per ANM*	*No. of Married Couples per FPC*	*Proportion of Couples Effectively Protected* (percent)
Andhra Pradesh	2267	16,262	30.5
Bihar	2499	18,958	15.8
Gujarat	1861	12,767	39.7
Haryana	1308	15,863	40.2
Karnataka	829	14,383	29.2
Kerala	1120	17,223	36.3
Madhya Pradesh	1906	12,493	27,2
Maharashtra	1143	14,813	48.1
Orissa	1601	12,467	29.8
Punjab	984	13,602	42.9
Rajasthan	1637	15,335	17.9
Tamil Nadu	1664	12,423	32.1
Uttar Pradesh	1507	16,370	15.5
West Bengal	888	17,422	28.0

Coefficient of Correlation :
—between No. of married couples per ANM and proportion of couples effectively protected -0.44
—between No. of married couples per FPC and proportion of couples effectively protected —0.48.

lays for family planning is justified only when the availability of clinical services and coverage of population by the field workers is improved.

As stated earlier, data for the micro-level analysis is culled out from a family planning evaluation study. This study was conducted in Rupnagar district of Punjab, wherein 33 villages from two PHCs namely, Chamkaur Sahib

and Boothgarh were surveyed. These PHCs were so chosen that in one PHC, family planning programme performance was above the average performance of the district (Chamkaur Sahib) and in other PHC, below the average performance of the district (Boothgarh). The vasectomy, tubectomy and IUD acceptance rates in the better performing PHC (Chamkaur Sahib) were 0.95, 2.43 and 3.93 per 1000 population respectively during a reference period of two years (1978-80). Corresponding rates in the Boothgarh PHC were 0.32, 0.97 per 1000 population for vasectomy and tubectomy respectively (There was only one IUD acceptor in Boothgarh PHC).

To study the impact of the availability of the clinical services on contraceptive prevalence, study villages in the two PHCs were divided into two categories on the basis of their distance from the nearest FPC providing sterilization and IUD insertion facilities. Villages situated within 5 km from the FPC were put in the first category (Called 'A') and rest of the villages in the second category (Called 'B'). Categorization of villages in this manner show that in Chamkaur Sahib PHC, 80.18 percent of the total study population was living in villages under category 'A', while in Boothgarh PHC, 71.05 percent population was living in villages of this category. It is possible that easy availability of clinical services to a comparatively larger population was instrumental in the higher acceptance of family planning methods in the Chamkaur Sahib PHC. This phenomenon is further supported by the finding that contraceptive acceptance rates were much higher in the villages in 'A' category than the villages coming under 'B' category. The study shows that in Chamkaur Sahib PHC, vasectomy, tubectomy and IUD acceptance rates in the villages of 'A' category were, 1.07, 2.68 and 4.32 per 1000 population respectively, while in 'B' category villages these rates were 0.38, 1.33 and 2.09 per 1000 population respectively. In the Boothgarh PHC also, tubectomy acceptance rate was higher in 'A' category villages (1.08 per 1000 population). Although in the latter PHC, vasectomy acceptance rate was slightly higher in 'B' category villages (0.42 per 1000 population) than the villages under 'A' category (0 28 per 1000 population), as the number of vasectomy acceptors in this PHC were very low, differences in the acceptance rates can not be treated as an indicator of performance.

Large differences in the acceptance rates of various family planning methods in the two categories of villages clearly indicate that the accessibility to the clinical services play an important role in the acceptance of fertility control measures.

Another finding of this study is pertaining to the coverage of population by the family planning field workers particularly ANMs. To analyse the impact of population caverage by ANMs on the acceptance of family planning methods, the study villages were divided into two categories 'X" and *'Y* on the basis of presence or absence of the ANM in the villages. Category *'X'* includes all those villages which are covered by the ANMs and category *'Y'*$_t$

other villages.

Division of villages in these two categories shows that, in Chamkaur Sahib PHC, all but 6 villages comprising 93.62 percent of the total study population were covered by the ANMs. On the other hand in the Boothgarh PHC, only 43.35 percent population was looked after by the ANMs. The study also shows that the acceptance of family planning methods was much higher in the villages covered by the ANMs than the rest of the villages. For example, in Chamkaur Sahib PHC all the vasectomy and IUD acceptors were from the villages in *'X'* category. However, tubectomy acceptance rate was somewhat higher in the villages of 'Y' category. In Boothgarh PHC acceptance rates of both the methods, vasectomy and tubectomy, were much higher in the villages under *'X'* category than in the villages under 'Y' category. Thus, it is apparent that even the presence of ANM in the community is helpful in increasing the acceptance of fertility control measures.

Conclusion

Both the macro and micro level analysis of the impact of programme efforts on the contraceptive prevalence shows that adequate coverage of population by the FPCs and family planning field workers are positively correlated with the acceptance of fertility control measures. Though these two factors are related to the per capita expenditure on family welfare with which programme performance correlation was comparatively weak, it appears that proper management of available resources is more important than increasing the outlays on the programme. Some states with lower per-capita expenditure on family welfare have achieved better coverage of population by the FPCs and field workers and consequently have shown better performance. Study also shows that in order to improve the contraceptive prevalence the programme effort should be concentrated on adequate coverage of population by the clinical facilities and family planning field workers.

References

1. Anderson, J.E. and Cleland, J.C., 1984, The world fertility survey and contraceptive prevalence surveys : A. comparison of substantive results, *Studies in Family Planning,* 15(1), (Jan./Feb.), 1.
2. Goyal, R.S., 1985, *An Evaluation of Family Planning Programme in Punjab,* Population Research Centre, Punjab University, Chandigarh, pp. 27-32.
3. Goyal, R.S., and D'Souza, V.S., 1983, India's good services bring success, *Inventory of Selected Local Family Planning Programme Experiences in Countries of ESCAP Region,* Vol. V., ESCAP, Bangkok.
4. Lapham, R.J. and Mauldin, W.P., 1985, Contraceptive prevalence: The influence of organised family planning programme, *Studies in Family Planning,* 16(3) (May/June), 117.

5. Ministry of Health and Family Welfare, Govt. of India, *Family Welfare Programme in India: Year Book 1982-83, 1983-84,* Deptt. of Family Welfare, New Delhi.
6. ___, *Health Statistics of India — I983,* Central Bureau of Health Intelligence, Directorate General of Health Services, Ministry of Health and Family Welfare, Govt. of India, New Delhi.
7. Panel on Fertility Determinants, 1983, A framework for the study of fertility determinants. *In* R. Bulatao and R. Lee (Eds.), *Determinants of Fertility in Developing Countries,* Academic Press, New York.
8. Simmons, R., Ness, G.D. and Simmons, G.B., 1983, On the institution analysis of population programmes, *Population and Development Review,* 9(3) Sept., 457-474.