CAUSES OF DIFFERENTIAL PERFORMANCE OF FAMILY PLANNING WORKERS IN UPAZILA

Final Report

PROGRAM FOR THE INTRODUCTION AND ADAPTATION OF CONTRACEPTIVE TECHNOLOGY, BANGLADESH
(PIACT/BANGLADESH)
DHAKA, DECEMBER 1985

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CHAPTER 1

BACKGROUND

Introduction

The era of Bangladesh witnessed a tremendous increase in official attention to population issues. In fact, every government formed in this country since liberation, has prioriotized the high population growth issue, declared it as the number one national problem, and resolved to tackle it on an emergency basis.

In 1977, full time workers were depolyed by the Population Control and Family Planning Division for the first time for offering family planning services in rural areas of Bangladesh. Since the integration of the Population Control and Family Planning Program with the Health Program at the bottom level, health workers were added to the strength of family planning workers.

On the basis of the integration policy decision, the domicilliary services were to be provided by both health and family planning workers at the ward level. The ward level health workers (Family Welfare Workers (FWW) and Government Health Assistants) were redesignated as Health Assistant (HA) and the ward level family Planning workers continued to have their previous designation of Family Welfare Assistant (FWA). Both Health Assistants (HA) and Family Welfare Assistants (FWA) have some common health and family planning job responsibilities. The common family planning responsibilities (Ministry of Health and Population Control, 1983) include Information, Education and Motivation (IEM) activities, meeting the monthly target of recruiting acceptors of mordern methods of family planning, dispensing contraceptives twice a week at the contraceptive distribution points (CDP) and following up of acceptors. The additional family planning jobs an FWA is expected to do are: following up of female method acceptors, maintaning health and family planning card for each eligible couple and receiving technical guidance from the Family Wellfare Visitors (FWV). The additional family planning job, an HA is assigned to do, is to maintain liaison with the union based Health and Family Welfare Centre (H & FWC) and with the Village Health Volunteers.

The Assistant Health Inspector (AHI) and the Family Planning Assistant (FPA) having similar job responsibilities (Ministry of Health and Population Control, 1983) are the bottom line supervisors for the grassroot level structure of the family planning program. Their job coverage is different in that one AHI is assigned for every two unions while one FPA is assigned for each union to supervise domicilliary services.

Therefore, by family planning workers one should mean the workers of both health and family planning wings posted at ward and union levels, including Family Welfare Visitors (FWV).

The Problem

Despite the total commitment on the part of the Government, increased program efforts, and specific targets pursued at different phases of the program development, only a modest success has been recorded in respect of contraceptive prevalence in Bangladesh, as is evident from the following table:

Contraceptive Prevalence Rates Found in Different Surveys

Source	Contraceptive prevalence rate (in percent)
National Impact survey (NIS), 1969	3·7
Bangladesh Fertility Survey (BFS), 1975	9.6
Bangladesh Contraceptive prevalence Survey (BCPS), 1979	12,1
Bangladesh Contraceptive prevalence Survey (BCPS), 1981	18.6
Bangladesh Contraceptive prevalence Survey (BCPS), 1983	21.7

Cain (1978) observed "The prospects for rapid fertility decline in Bangladesh, either spontaneous or in response to population policy intervention, are not promising". The contraceptive prevalence rate estimated at 21.7 percent (Mitra and Associates,

1984) also suggests a remote prospect of achieving the demographic target of NRR= 1 by 1990. Though the country statistics on the prevalence rates are far below the targets set, the monthly performance statistics compiled by the Management Information Systems (MIS) unit of the Population Control and Family Planning Division, indicate high rates for some upazilas and low rates for others, resulting in a large areal variation (variation among upazilas).

Thus despite a uniform *organizing strategy* and a common *strategy for client transaction* (Simmons et al, 1975:581) for all rural upazilas except a few experimental project upazilas, there, nevertheless; does persist this areal variation in the practice rate. Since there is reason to believe that the workers' performance directly impacts prevalence rates, it may reasonably be assumed that the workers' performance, also, does vary among the upazilas. This areal variation in the workers' performance may be a function, broadly, of the following : background and other characteristics, organiztional determinants, and environmental conditions (task environmental and general environmental conditions).

Organizational determinants refer to those program activity variables which are likely to affect the program performance in an area. An organization is defined as "the coordination of different activities of individual contributors to carry out planned transactions with the environment" (Laurence and Lorsch, 1969 : 3). Activities include a variety of behaviours and environment is that part of the world external to the activities that are carried out by the organization itself (Simmons et al., 1975; 574).

It has been alluded to above, that the organizational determinants are related to program activity variables. An analytic distinction suggests two dimensions of family planning organizational behaviour : *client-oriented* and *organizing* dimensions (Simmons et al., 1975 : 580). Home visits or the provision of contraceptive services, for example, are "Program functions that can be unambiguously classified as client-oriented". Supervisor reporting, evaluation, and personnel management are examples of the organizing dimension. In the case of our country's program, the number of workers, field visits, joint field work, and quality of workers' visits, which are the organizational variables related to the *client-oriented* dimension, are likely to differ from one area to the other, resulting in an areal variation in workers' performance. Likewise quality and quantity of supervision, and field workers' relationships with supervisors, which are also the organizational variables but related to the *organizing dimension* as contrast to the client-oriented aspect, are presumed to have an important bearing on workers' performance.

Background Characteristics of the field workers include predisposing factors such as education, economic condition, marital status, family size etc. It is presumed that workers with favourable predisposing characteristics and a relatively adequate work background are likely to be better workers.

Environmental Conditions refer to those which are external to the organization. Environmental conditions are of two types the task *environmental* and the *general environmental conditions*. Task environmental factors are those parts of the environment which are relevant to goal setting and goal accomplishment. Groups or agencies other than the Health and Family Planning Directorate, such as private practitioners (Traditional as well as modern), political or religious leaders, can either support or undermine the family planning program's ability to reach its goal. Since task environments are not the same in all areas, it may be that the variation in support from such environments may be one of the determinants of variation in the workers' performance. Another type of environmental condition, known as general environmental condition, is nothing but the product of the social and economic cultural conditions of the area where the program is carried out. It is known, for example, that the attitude towards contraception is more favourable among the socially and economically better off segments of the population. The workers' performance in an area depends therefore, on the average socio-economic status of the people of that area.

The problem, thus, is to look into the linkage between family planning field workers' performance and their background characteristics, organizational determinants and environmental conditions. More specifically, the objective of the study is to ascertain the factors responsible for differential performance of family planning workers in upazilas.

CHAPTER—2

METHODOLOGY

Sampling Design

A three-stage sampling technique was used to select the sample. The upazilas were the primary sampling units (PSU) while the unions served as the secondary sampling units (SSU). The ultimate sampling unit (USU) was a currently married woman of reproductive age. The selection of PSU was purposive; the SSU s were selected randomly. The systematic sampling technique was used for the selection of USUs.

Selection of PSU

The universe for PSU comprised of all the 465 upazilas of Bangladesh for which figures on contraceptive distribution and clinical performance were available in the Management Information System (MIS) Unit of the Population Control and Family Planning Directorate, for the months of January, February and March, 1984. For stratifying the upazilas, a crude composite index-couple years of protection (CYP) was used. Data on distribution of contraceptives, set as target as well as actually achieved, were collected from the MIS Unit for individual upazilas. These data of each upazila on target and achievement have been converted into CYP by the conversion factors, also supplied by the MIS Unit. Contraceptive methods for which CYP were calculated along with their conversion factors, are shown below :

Sl. No.	Method	Conversion factor
1.	Oral Pill	15 cycles = 1 CYP
2.	Condom	150 pieces = 1 CYP
3.	Emko	4 vials = 1 CYP
4.	Injectable	4 doses = 1 CYP
5.	IUD	1 insertion = 1 CYP
6.	Sterilization	1 client = 1 CYP
7.	Foam Tablet	150 tablets = 1 CYP

After converting data of each method into CYP, the CYPs were added up for all the methods. This was done separately for both target and achievement figures for each of the three months — January, February and March, 1984. Then the average CYP over three months was computed for both target and achievement. The percent of target achieved was calculated by taking the ratio of average achievement CYP to average target CYP and then multiplying the ratio by 100. This was done for each of the 465 upazilas.

The formulae used in calculating percent of target achieved in terms of CYP are as follows :

$$Cyp_a = \frac{1}{3}\sum_{i=1}^{3}\left[\frac{X_{Pai}}{15} + \frac{X_{Cai}}{150} + \frac{X_{Eai}}{4} + \frac{X_{Iai}}{4} + X_{Dai} + X_{Sai} + \frac{X_{Fai}}{150}\right]$$

$$Cyp_t = \frac{1}{3}\sum_{i=1}^{3}\left[\frac{X_{Pti}}{15} + \frac{X_{Cti}}{150} + \frac{X_{Eti}}{4} + \frac{X_{Iti}}{4} + X_{Dti} + X_{Sti} + \frac{X_{Fti}}{150}\right]$$

$$\text{Percent of target achieved} = \frac{Cyp_a}{Cyp_t} \times 100,$$

Where Cyp_a = average achievement CYP,

Cyp_t = average target Cyp,

X_{Pai} = Amount (in cycle) of oral pill actually distributed in the ith month where

i = 1 January, 1984
= 2 February 1984
= 3 March, 1984

X_{Pti} — Amount (in cycle) of oral pill targeted for distribution in the ith month,

X_{Cai} = Amount (in pieces) of condom actually distributed in the ith month.

X_{Ctl} - Amount (in pieces) of condom targeted for distribution in the ith month.

X_{Eai} - Amount of Emko (in vials) actually distributed in the ith month.

X_{Eti} - Amount of Emko (in vials) targeted for distribution in the ith month.

X_{Iai} - Number of injectables actually used in the ith month.

X_{Itl} - Number of injectables targeted for use in the ith month.

X_{Dai} - Number of IUD actually inserted in the ith month.

X_{Dti} - Number of IUD targeted for insertion in the ith month,

X_{Sai} - Number of sterilization actually perfomed in the ith month.

X_{Sti} - Number of sterilization targeted for performance in the ith month.

X_{Fai} - Number of foam tablets actually distributed in the ith month.

X_{fti} - Number of foam tablets targets for distribution in the ith month.

All these 465 upazilas, have, then been arranged in descending order of mangitude of the percent of target achieved. Then the first fifty upazilas and the bottom fifty upazilas from the list have been taken as the primary sampling units in order to allow maximum discrimination in respect of percent of target achieved between the two groups of upazilas.

Selection of SSU

A union was the SSU in this study. From each of the selected 100 upazilas, four unions were selected randomly. Since three upazilas had less than four unions, the union coverage was 396 instead of 400. The list of unions within an upazila was supplied by the Family Planning Officer (FPO) of that upazila. Having selected the unions, family planning workers of six different ranks within each union were chosen as data source, on complete enumeration basis. They were FPA, FWA, AHI, HA, FWV and *dai*. The numbers of successfully interviewed family planning workers of different types are as follows; FPA — 370; AHI — 236: FWV — 27; FWA — 999; HA—811; and dai—521.

Selection of USU

In the original plan of the study, information were to be collected from a sample of 4000 currently married women (10 women per union). But on the assumption that the non response rate might be high, the sample was targeted at 7128 currently married women (18 per union). Information were finally collected on a sample of 5838 women, on which the analysis had been based. Thus, the sample size is 1838 in excess of what was originally planned. The frame for the selection of USUs was supplied by FPO/FPA.

Data Collection

Interview was the principal method of data collection. Besides, records were consulted at the upazila office and at the FWC for extracting data on the pertinent issues. Three types of instruments were administered for data collection. They were as follows:

1. An interview schedule for currently married women of reproductive age. This schedule was intended to bring information about different socio-economic and demographic characteristics of sample women.

2. An interview schedule for health and family planning workers. This instrument was administered to generate data on the extent and quality of supervisory support extended to grass-root level workers by upazila officials, workers' knowledge of maternal and child health (MCH) and family planning (FP), types of family planning services they provide, their opinion about local leaders' role in the family planning program , functioning of union family planning committee, and workers' socio-economic and demographic characteristics.

3. A check list which was used to collect data from records of family welfare centre (FWC) and of upazila family planning office, and through physical verification. The area of interest includes; number of IUD and sterilization cases referred by different categories of workers, distribution of contraceptive commodities, services of FWC, number of depot holders and contraceptive outlets, number of special projects etc.

The instruments were finalized following the review of pretest experiences. In

the process of finalizing the research instruments, suggestions of USAID and NIPORT were incorporated. Besides, comments of the members of the consultative committee formed for this study were given due attention.

Management of Data Collection Work

As many as 12 teams were deployed for data collection. Each team was composed of 3/4 females and one male interviewers headed by one supervisor. They were imparted a week-long training by local and expatriate experts in the field. The topics covered in the training were : organizational structure of the national family planning program with special reference to functioning of the grass-root level structure; art of interviewing, objective and purpose of the questions/aspects framed in the instruments, consistency check, editing and public relations. The data collection program began in October and ended in December, 1984.

Data processing

The collected data were edited, coded and then verified twice by a group of trained hands. Data processing was done by computer at the computer centre of Bangladesh University of Engineering and Technology (BUET). The analysis was carried out using the Statistical Package for the Social Sciences (SPSS).

Analysis of Data

The objective of this study is to ascertain the factors responsible for differential performance of the family planning workers in upazilas. "Couple years of protection per eligible Couple" has been used as a measure of the workers' performance. In this case, CYP based on the actual distribution data has been used. The method of computation of CYP has been described earlier. This CYP has been described earlier. This CYP was an average over three months' distribution data. Number of eligible couples in an upazila has been estimated taking 19 percent of the total population of that upazila for the year 1984. The 1981 census data were used for this purpose. These 1981 population figures for the selected 100 upazilas were projected to obtain the population sizes of those upazilas in 1984, using the formula:

$$P_n = P_0 (1 + r)^n$$

This projection formula has been chosen on the assumption that the rates at which population increased each year did not change significantly over a span of only three years.

The estimted number of eligible couples divided into the estimated couple year protection has yielded estimated couple year protection per eligible couple. This, then, was muitiplied by 12 to obtain an estimated couple year protection per eligible couple as a measure of the workers' performance for the year 1984 and has been used as the dependent variable.

A note on the use of the distribution data in computing the measure of workers' performance is warranted. Distribution data are known to be usually inflated. As such, these data might fail to reflect the actual performance of the workers. But we may probably reasonably assume that the inflation of the distribution data should not only be a common phenomenon for all the upazilas but that the variances of the amounts of inflation are unlikely to be significant. As a result of this, the confficients, obtained in the multivariate analysis are unlikely to have been significantly affected, since regression coefficients, though dependent on the scale of measurement, are independent of origin of measurement.

The independent variables on which information have been collected can be broadly classified into three groups: Organizational determinants, background characteristics and environmental conditions. Since the objective of the study is to identify factors related to the performance of the workers, many of the variables within each of these broad groups have been crose-classified with the dependent variable.

For the purpose of cross-classification, the dependent variable has been categorized into three groups: high, medium and low. The selected 100 upazilas were arranged in descending order of magnitude of the dependent variable. The top 33 upazilas have been called high performance upazilas the next 33 upazilas have been called medium performance upazilas and the rest 34 upazilas—the low performance upazllas. Regarding categorization of the independent variables, mean or a value close to the mean, in case of many interval scaled variables, was the dividing point for dichotomization. In other cases percentages were calculated and were later dichotomized or trichotomized. In case of nominal variables, percentages were used. The factor that played a dominant role in deciding the dividing points for dichotomization or trichotomzation is the sufficiency of cell frequncies so as to enable a Chi-square test to be performed.

For each table in which an independent variable has been cross-classified with the dependent variable, frequecy Chi-square has been calculated as a test of the hypothesis of no association between the variables forming the table. The independent variable for which the hypothesis of no association has been rejected because the Chi-square value is in the best critical region (i.e. the region corresponding to the most powerful test), has later been used into the regression model for further analysis. Also were included in the regression model, variables which were significant even at a level, as high as 20 percent, to lesson the chance of excluding those variables from the regression that may, in fact, be related, in the population, with the dependent variable but have been found insignificently related with the dependent variable for reasons of somewhat arbitrary dividing point for dichotomization. Another reason for taking the significance level so high is that, the bivariate cross-classification can, in no way, predict the behaviour of the independent variable used, in presence of other independent variables. To allow for this, a margin, wider than usually acceptable, of error has been tolerated in the selection of variables to be included in the regression model. The variables which have been found to be very insignificantly associated with the dependent variable, through the bivariate classifications, have been dropped from further analysis. Other independent variables, which have not been cross-classified with the dependent variable have been presented in the univerlate format.

It is to be noted' that 'not stated' and 'not applicable' cases have been excluded from our analysis.

CHAPTER 3

BACKGROUND AND OTHER CHARACTERISTICS

Favourable predisposing background characteristics of both workers and clients may affect workers performance. This chapter is devoted to the presentation of the results of the analysis of data on such background characteristics.

Mean age at first Marriage

Table 1 presents the cross-classification of the variables-workers performance measured in terms of CYP per eligible couple and mean age at first marriage in upazilas. A greater percentage of upazilas (41.3 percent) with mean age at first marriage less than 14 years than those with mean age at first marriage 14 years or more (25.9 percent), belong to the high performance area, The pattern is opposite in the low performance area. In the medium performance area, the difference in the percentages is small. The chi square value of 4.4 with degrees of freedom (at 10 percent level of significance) implies that the two variables may be significantly associated in the population.

(Table No,-1 Shown at Page no—14)

Mean Age

A similar pattern is observed when the workers' performance is cross-classified with mean age (table 2). A greater percentage (37.5 percent) of upazilas in the age gorup— less than 28 years than those in the age group— 28 years or more (30·0 percent) belong to the high performance area. The chi-square value of 1.32 with 2 degrees of freedom shows that the two variables have an insignificant chance of being associated.

Table 1

Percentage Distribution of Upazilas by Workers' Performance and by Mean Age At First Marriage (of Women)

Workers' performance	Mean Age at First Marriage			
	<14	14+	Total	Mean
High	41.30 (19)	25.93 (14)	33	13,98
Medium	34.78 (16)	31.48 (17)	33	14.05
Low	23.91 (11)	42.59 (23)	34	14.35
Total	100.00 (46)	100.00 (54)	100	14.20

Chi square = 4·4 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 2

Percentage Distribution of Upazilas by Workers' Performance and by Mean Age (of Women).

Workers' Performance	Mean age			
	<28	28+	Total	Mean
High	37.50 (15)	30.00 (18)	33	28.14
Medium	35.00 (14)	31.67 (19)	33	28.22
Low	27.50 (11)	38.33 (23)	34	28.75
Total	100.00 (40)	100.00 (60)	100	28.50

Chi Square= 1·32 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Mean Number of living sons

Table 3 percents the distribntion of upazilas by workers' performance and by mean number of living sons of the women in those upazilas. A greater perceptage of upazilas (38·3 percent) having mean number of living sons less than 1·75 than upazilas (28·3 percent) having mean unmber of living sons 1·75 or more, do belong to the high performance upazilas The differentials in percentages for the other two categories of workers' performance are small. The chi square value for this contingency table is 1·14 with 2 degrees of freedom. This indicates a very small chance for a significant association between the variables to exist in the population.

Table 3

Percentage Distribution of Upazilas by Workers' Performance and by Mean Number of living Sons (of women)

Workers' Performance	Mean number of living sons			
	<1·75	1·75+	Total	Mean
High	38·30 (18)	28·30 (15)	33	1·73
Medium	29·79 (14)	35·85 (19)	33	1·76
Low	31·91 (15)	35·85 (19)	34	1·75
Total	100·00 (47)	100·00 (53)	100	1·75

Chi squari = 0·41 with 2 degrees of freedom.
Column percentages may not add to 100·0 due to rounding error.
Figures in parentheses indicate frequencies.

Mean number of living daughters

Table 4 is the same as table 3 except that the variable-mean number of living son-has been replaced by the variable—mean number of living daughters. As is observed from the table, the percentages of the number of upazilas having different categories of the mean number of living daughters (less than 1.65 and 1·65 or more), which belong to the high performance area, do not vary considerably (32·0 percent and 34·0 percent respectively). This is also, more or less, true for the other two performance categories. The chi square of ·41 with 2 degrees of freedom implies no significant association between the variables.

Table 4

Percentage Distribution of Upazilas by Workers' Performance and by Mean Number of Living Daughters (of women)

Workers' Performance	Mean number of living Daughters			
	<1·65	1·65+	Total	Mean
High	32·00 (16)	34·00 (17)	33	1·68
Medium	36.00 (18)	30·00 (15)	33	1·64
Low	32·00 (16)	36·00 (18)	34	1·64
Total	100.00 (50)	100·00 (50)	100	1·65

Chi square= ·41 with 2 degrees of freedom.

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Mean number of live born sons who died

Table 5 is the cross-classification of the variables workers' performance and mean number of live born sons who died. The percentages of upazilas having mean number of less then ·4 live born sons who died and ·4 or more live born sons who died in

high performance category do not vary (32.6 percent and 33.3 percent respectively) considerably. The differences in the percentages for the medium and low performance categories are also very small. This suggests that the variables are unlikely to be associated. The chi square value of .02 with 2 degrees of freedom also implies the absence of a significant association between the two variables considered.

Table 5

Percentage Distribution of Upazilas by Workers' Performance and by Mean Number of Live Born Sons Who Died (of Women)

Workers' Performance	Mean number of live born sons			
	<0.4	0.4+	Total	Mean
High	32.56 (14)	33.33 (19)	33	0,42
Midium	32·56 (14)	33.33 (19)	33	0·40
Low	34.88 (15)	33.33 (19)	34	0,40
Total	100.00 (43)	100.00 (57)	100	0.41

Chi square=.02 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Mean number of live born daughters who died

Table 6 is the same as table 5 except that the mean number of dead sons is replaced by the mean number of dead daughters. As can be observed from the table, the percentage differentials along the rows are very negligible, implying that this variable is also unlikely to be associated with the workers' performance. The chi square value of .02 with 2 degrees of freedom supports that the variables may not be significantly associated in the population.

Table 6

Percentage Distribution Upazilas by Workers' Performance and by Mean Number of Live Born Daughters Who Died (of women)

Workers' Performance	Mean number of live born daughters			
	<4	4+	Total	Mean
High	33.33 (17)	32.65 (16)	33	0.39
Medium	33.33 (17)	32.65 (16)	33	0.36
Low	33.33 (17)	34.69 (17)	34	0.39
Total	100.00 (51)	100.00 (49)	100	0.38

Chi square=.02 with 2 degrees of freedom.
Column percentages may not add to 100.00 due to rounding error.
Figures in parentheses indicate frequencies.

Mean educational level

Table 7 is the distribution of upazilas by workers' performance and by mean educational level of the women in those upazilas. As is observed from the table, a greater percentage of upazilas (35.9 percent) in the lower educational category than in the higher educational category (32.8 percent) do belong to the low performance area. The differential in percentages gradually increases as one moves along the medium and high performance areas. However, the chi square of 1.68 with 2 degrees of freedom shows that the differentials in percentages were not large enough for a significant association between the variables to be suspected.

Table 7

Percentage Distribution of Upazilas by Workers' Performance and by Mean Years of Schooling (of women)

Workers' Performance	Mean years of schooling			
	<1.5	1.5+	Total	Mean
High	25.64 (10)	37.70 (23)	33	1.70
Medium	38.46 (15)	29.51 (18)	33	1.72
Low	35.90 (14)	32.79 (20)	34	1.75
Total	100.00 (39)	100.00 (61)	100	1.75

Chi square= 1.68 with 2 degrees of freedom.
Column percentages may not add to 100.00 due to rounding error.
Figures in parentheses indicate frequencies.

Mean duration of current use

The variables—workers' performance and mean duration of current use—have been cross classified in table 8. A much higher percentage (44.9 percent) of upazilas of the higher current use duration category than upazilas in the lower current use duration category (21.6 percent) do belong to the high performance area. The pattern is significantly reversed for the low performance area. The differences in the percentages are considerable, suggesting that variables may be associated in the population. The chi square of 7.89 with 2 degrees of freedom implies that a signicant relationship is likely to exist between the two variables forming the table.

Table 8

Percentage Distribution of Upazilas by Workers' Performance and by Mean Duration of Current Use of Contraception (of Women)

Workers' Performance	Mean duration of current Contraception (in months)			
	<6	6+	Total	Mean duration
High	21.57 (11)	44.90 (22)	33	7.02
Medium	33.33 (17)	32.65 (16)	33	6.06
Low	45.10 (23)	22.45 (11)	34	5.58
Total	100.00 (51)	100.00 (49)	100	6.10

Chi Square = 7.89 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Mean landsize

Table 9 presents the distribution of upazilas cross-classified by workers' performance and by mean landsize. As the table indicates, the percentages of upazilas in the three landsize categories-less than 15 decimals, 15-20 decimals, and more than 20 decimals - belonging to the high performance area differ insignificantly (percentages are 33.3, 34.8 and 31.6 respectively). The percentages along the other two rows corresponding to the medium and low performance areas also do not differ to the extent for a significant association between the two variables to be suspected. The chi

squere value of .12 with 4 degress of freedom implies nonsignificanc of the association between the two variables.

Table 9

Percentage Distribution of Upazilas by Workers' Performance and by Mean Amount of Own Cultivable Land (of women)

Workers' Performance	Mean own cultivable land				
	<15	15—20	> 20	Total	Mean
High	33.33 (13)	34.78 (8)	31 58 (12)	33	19.84
Medium	33.33 (13)	30.43 (7)	34.21 (13)	33	18 99
Low	33.33 (13)	34.78 (8)	34.21 (13)	34	19.20
Total	100.00 (39)	100.00 (23)	100.0 (38)	100	19.20

Chi square = .12 with 4 degrees of freedm. Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Occupation

Table 10 shows the distribution of upazilas cross-classified by workers' performance and by percentage of the women in upazilas whose husbands are engaged in agriculture. For example, the frequency 10 in the cell corresponding to "medium" category of the workrs' performance and '30-40' category of the percentage engaged in agriculture,

implies that there are 10 upazilas belonging to the medium performance category, in which 30-40 percent of the women reported that their husbands are engaged in agriculture. The percentages of upazilas in the less than 30 percent, 30-40 percent and more than 40 percent engaged in agriculture categories, which belong to the high performance area, are 25.0, 41.4, and 32.6 respectively. The percentage along the other rows also differ, but overall, these differences are not large enough to warrant a significant association between the variables considerd. The chi square value of 3·53 with 4 degrees of freedom also implies that these differences are likely to have arisen out of chance.

Table 10

Percentage Distribution of Upazilas by Workers' Performance and by Percentage of Women Whose Husbands are engaged in Agriculture

Workers, Performance	Percentage engaged in agriculture <30	30-40	40+	Total
High	25.00 (7)	41.38 (12)	32.56 (14)	33
Medium	28.57 (8)	34.48 (10)	34.88 (15)	33
Low	46.53 (13)	24.14 (7)	32.56 (14)	34
Total	100.00 (28)	100.00 (29)	100.00 (43)	100

Overall percentage engaged in agriculture = 37.0
Chi square = 3.53 with 4 degrees of freedom.
Column percentages may not add to 100.0 to rounding error.
Figures in parentheses indicate frequencies.

Religion

Table 11 is the bivariate table involving the variables workers' performance and percentage of Muslims. A greater percentage of upazilas (35.3 percent) having 85 percent or more Muslims than upazilas comprising of less than 85 percent Muslims (30.6 perccent) do belong to the high performance area, Although the pattern is the same for the medium performance area, it is reversed for the low performance area. However, overall, the differences are not large as is evident from the value of chi square (3.6 with 2 degrees of freedom) that implies that the variables are unlikely to be singificantly associated in the population.

Table 11

Percentage Distribution of Upazilas, by Workers' Performance and by Percentage of Muslims (Among Women)

Workers' Performance	Percentage of Muslims		Total
	<85	85+	
High	30.61 (15)	35.29 (18)	33
Medium	26.53 (13)	39.22 (20)	33
Low	42.86 (21)	25 49 (13)	34
Total	100.00 (49)	100.00 (51)	100

Chi square=3.60 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in perentheses indicate frequencies.

Non-use of Contraception

Table 12 is the cross-classification of the workers' performance and percentage of current non-use of cantraception (current non-users of contraception in a upazila divided by currently married women in that upazila, both obtained from the sample, expressed as percentage). The percentage of upazilas in categories - less than 75 percent non-use and 75 percent or more non-use -which belong to the high performance group, are 45·9 and 12·8 respectively. In other words, a much greater percentage of upazilas where the rate of non use of contraception is lower than that of upazilas where the rate of non-use of contraception is higher, belong to the high performance area. The percentage (29·5 percent and 38·5 percent respectively) along the medium performance row do not differ considerably. A reversal of trend is observed for low performance area . A greater percentage of upzilas where the rate of non-use is higher belong to the low performance area. Thus the table provides evidence that a larger proportion of those upazilas having lower non-use of contraception belong to the high performance area. The chi-square value of 12.5 with 2 degrees of freedom indicates that there may exist a highly significant association between the two variables.

Table 12

Percentage Distribution of Upazilas by Workers' Performance and by Percentage of Non-users of Contraception (of women)

Workers' Performance	Percentage of Non-users			
	<75	75+	Total	Mean percentage of users
High	45·90 (28)	12·82 (5)	33	29·28
Medium	29·51 (18)	38·46 (15)	33	27·36
Low	24·59 (15)	48.71 (19)	34	24·34
Total	100.00 (61)	100·00 (39)	100	26·80

Chi-square = 12·54 with 2 degrees of freedom
Colum percentage may not add to 100·0 due to rounding error.
Figures in parentheses indicate frequencies.

Household economy

Cross classification of the variables-workers' performance and percentage of women having deficit family ecocomy is shown in table 13. It appears from the table that the variability in the percentages of upazilas between the two 'deficit economy' categories (<50, 50+) which (upzilas) belong to the high performance area is not large (29 0 percent and 39 5 percent respectively). This lack of significant variation is also observed in the percentages for both the medium and low performance areas. The chi square value of 1.87 with 2 degrees of freedom suggests that the variables are unlikely to be significantly associated.

Table 13

Percentage Distribution of Upazilas by Workers' Performance and by Percentage of Women Mentioning Deficit Family Economy

Workers' Performance	<50	50+	Total	Average percentage
High	29.03 (18)	39.47 (15)	33	48.84
Medium	32.26 (20)	34.21 (13)	33	45.53
Low	38.71 (24)	26 32 (10)	34	44.05
Total	100.00 (62)	100.00 (38)	100	46 20

Chi square= 1.87 with 2 degrees of freedom.
Column percentage may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Live births during the last twelve months

Table 14 gives the distribution of women by whether or not live births occurred to them during the last twelve months. It appears from the table that 77.6 percent of the respondents reported that they did not have any live birth during the last twelve months, while the rest reported to have had live births during that period.

Table 14

Percentage Distribution of Upazilas by Whether or not Live Births Occurred During the Last Twelve Months (of Women)

Live birth in last 12 months	Percentage
No birth	77.6 (4527)
Birth	22.4 (1305)
Total	100.0 (5832)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Pregnancy Status

Nearly 86 percent of the women reported that they were not currently pregnant while 13 percent said they were (Table 15). A very small percentage (.9 percent) of women were not certain at the time of interview as to whether or not they were pregnant.

Table 15

Percentage Distribution of Currently Married Women by Pregnancy Status

Pregnancy Status	Percentage
Yes	13.0 (756)
No	86.1 (5021)
Uncertain	0.9 (53)
Total	100.0 (5830)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Outside activities

Women were asked whether they, besides their household work, do anything to earn cash money. Table 16 shows that an overwhelming majority of the women (92.5 percent) answered in the negative. Only 2.5 percent mentioned that they have some outside activities that brings them cash money. The rest 5 percent have activities inside their home, besides their normal household work, that also help them earn cash money.

Table 16

Percentage Distribution of Currently Married Women by Their Income Activities Outside Household

Activities	Percentage
No activity	92.5 (5377)
In-house activity	5.0 (288)
Off-house activity	2.5 (147)
Total	100.0 (5812)

Column percentages may not add to 100.00 due to rounding error.
Figures in parentheses indicate frequencies.

House Condition

Table 17 presents the distribution of women by their house condition. More than half of the women live in houses with roof made of leaf. About 45 percent of the women have tinroofed house, whose walls are not pucca. Only a few of the women (3.0 percent) do have houses with pucca wall.

Table 17

Percentage Distribution of Currently Married Women by Their House Condition (of Women).

House condition	Percentage
Leaf roof	51.6 (3013)
Tin roof wall hot pucca	45.4 (2649)
Pucca wall	3.0 (176)
Total	100.0 (5838)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

To see whether the house condition of the respondents is related to the performance of the workers, in table 18 is presented the distribution of upazilas cross—classified by workers' performance and percentage of leaf-roofed house. The percentage of upazilas in the different categories of the variable - percentage of leaf—roofed house —in the high performance area not substantially different. This is true for the other two performance areas as well. The chi-square value of 1·62 with 4 degrees of freedom implies that the variables are unlikely to be significantly associated.

Table 18

Percentage Distribution of Upazilas by Workers' Performance and by Percentage of Leaf-Roofed House (of women)

Workers' Performance	Percentage of leaf-roofed house			
	<45	45—65	>65	Total
High	25·71 (9)	35·14 (13)	39·29 (11)	33
Medium	34·29 (12)	32·43 (12)	32·14 (9)	33
Low	40·00 (14)	32·43 (12)	28.57 (8)	34
Total	100.00 (35)	100.00 (37)	100 00 (28)	100

Chi square = 1.62 with 4 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Mean Number of children

Distribution of upazilas cross-classified by workers' performance and by mean number of children of the workers of those upazilas, is presented in table 19. The table shows that 28.6 percent of upazilas with higher mean number of children belong to the high performance area while 37·3 percent of upazilas with smaller mean number of children do belong to the high performance area Percentages along the other two rows also differ but no definite trend can be observed. For example, the percentages in the smaller mean number of children category, first decrease and then increase while for the other category first increase and then decrease in the mean number of children is observed. The chi-square value of 1.58 with 2 degrees of freedom also shows that the likelihood is small that the two variables will be significantly associated.

Table 19

Percentage Distribution of Upazilas by workers' Performance and by Their Mean Number of Living Children

Workers' Performance	Mean Number of Living Children			
	<2·8	2·8+	Total	Mean
High	37.25 (19)	28.57 (14)	33	2.87
Medium	27.45 (14)	38.77 (19)	33	2.86
Low	35.29 (18)	32.65 (16)	34	2.76
Total	100.00 (51)	100.00 (49)	100	

Chi square=1.58 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Economic condition of workers

Distribution of upazilas, cross-classified by workers' performance and by percentage of solvent workers in those upazilas is presented in table 20. Solvent workers are those who said that their income is more than their expense or at least they do not face deficit. The table shows that the percentage of upazilas—in which 60 percent or more workers said they are solvent—that belong to the high performance area is 33.3 while that of upazilas in which less than 60 percent workers said they are solvent—that belong to the high performance area is 32.8. The percentage differentials in the medium and low performance areas are also not appreciable. A lack of definite pattern is observed in the percentages in each of the two columns. The chi square value of .34 with 2 degrees of freedom implies nonsignificance of association between the two variables.

Table 20

Percentage Distribution of Upazilas by Workers' Performance and by Percentage of Solvent Workers

Workers' performance	Percentage of Solvent workers			
	<60	60+	Total	Mean
High	32.75 (19)	33.33 (14)	33	56.48
Medium	31.03 (18)	35.71 (15)	33	59.48
Low	36.20 (21)	30.95 (13)	34	56.76
Total	100.00 (58)	100.00 (42)	100	

Chi square = 0.34 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Religion of workers

Among the workers, 80.1 percent are Muslims and 19.1 percent are Hindus (table 21). In table 22, is presented the distribution of upazilas cross-classified by the workers' performance and by percentage of Muslims in those upazilas. The percentage of upazilas, in the higher percentage of Muslim category, that belong to the high performance area is 34.1 while the percentage of upazilas in the lower percentage of Muslim category that belong to the high performance area is 32.1. For medium performance category, the percentage difference is about 6 points, while that for low category it is about 8 points. However, no definite pattern can be observed in the percentages within each column. The chi square is .73 with 2 degrees of freedom and this does not imply significance of the association of the two variables.

Table 21

Percentage Distribution of Workers by Their Religion

Religion	Percentage
Islam	80.1 (2621)
Hindu	19.1 (625)
Other	.9 (28)
Total	100.0 (3274)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 22

Percentage Distribution of Upazilas by Workers' Performance and by Percentage of Muslims (Among Workers)

Workers' Performance	Percentage of Muslims			
	<85	85+	Total	Mean
High	32.14 (18)	34.09 (15)	33	78.68
Medium	30.35 (17)	36.36 (16)	33	82.67
Low	37.50 (21)	29.54 (13)	34	76.37
Total	100.00 (56)	100.00 (44)	100	

Chi square = 0.73 with 2 degrees of freedom.
Column percentage may not add to 100.0 due to rounding error,
Figures in parentheses indicate frequeicies.

Education of workers

Table 23 shows the distribution of workers by their educational level. As can be observed from the table, about half the workers have passed grades 6—10. About a third of the workers have passed higher grades than the 10th. The percentage of workers who have not passed a higher level than the primary is 15.6.

Table 23

Percentage Distribution of Workers by Their Years of Schooling

Years of schooling	Percentage
< 6	15.57 (509)
6—10	51.64 (1688)
10 +	32.79 (1072)
Total	100.00 (3269)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Marital status of workers

Distribution of workers by marital status is presented in table 24. We observe that an overwhelming majority of the workers (83.8 percent) are married. To see whether marital status of workers is related to their performance, upazilas have been distributed according to the percentage of married workers and workers' performance in table 25. The percentage of upazilas, in the 85 percent or more married workers category, which belong to the high performance area is 31.3 while that of upazilas in the less than 85 percent married worker category, which belong to the high performance area is 34.6. The percentages in the medium performance row as well as in the low performance row, also do not differ considerably. The percentages do not show any pattern so as to enable us to conclude that the variables are likely to be associated. Chi square value of .48 with 2 degrees of freedom indicates that it is highly unlikely that the variables are associated in the population.

Table 24

Percentage Distribution of Workers' by Their Martial Status

Marital Status	Percentage
Unmarried	7.9 (259)
Married	83.8 (2738)
Widowed	7.1 (233)
Divorced/Separated	1.2 (38)
Total	100.00 (3268)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 25

Percentage Distribution of Upazilas by Workers' Performance and by Their Marital Status

Workers' Performance	Percentage of married workers		
	<85	85+	Total
High	34.61 (18)	31.25 (15)	33
Medium	34.61 (18)	31.25 (15)	33
Low	30.76 (16)	37.50 (18)	34
Total	100.00 (52)	100.00 (48)	100

Chi square=0.48 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in perentheses indicate frequencies.

Contraceptive use by workers

Table 26 presents the distribution of workers by their contraceptive use status. We observe that about three quarters of the workers are users of contraception.

To investigate whether the contraceptive use status of the workers is related to their performance, upazilas have been distributed by percentage of workers' who are users and by workers' performance in table 27, The table shows that the percentage of upazilas, in the higher (75 percent or more) percentage of use category, which belong to the high performance area is 35.6 while that of the upazilas, in the lower (less than 75 percent) percentage of use category, which belong to the high performance area is 30.9. The differentials in the percentages along the medium performance row as well as along the low performance row are about

8 and 14 respectively. However, the table shows a lack of pattern in the percentages. The chi square value of 2 with 2 degrees of freedom suggests that it is likely that the association, apparent from the data, between the variables has arisen out of chance.

Table 26

Percentage Distribution of by Workers by Whether They Currently Use Family Planning Method

Current Use status	Percentage
Non-user	26.6 (728)
User	73.4 (2005)
Total	100.0 (2733)

Column percentage may not add to 100·0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 27

Percentage Distribution of Upazilas by Workers' Performance and by Percentage of Users Among the Workers

Workers' Performance	Percentage of users <75	75+	Total	Mean
High	30.90 (17)	35.55 (16)	33	73.60
Medium	29.09 (16)	37.77 (17)	33	76.11
Low	40.00 (22)	26.66 (12)	34	70.80
Total	100.00 (55)	100.00 (45)	100	

Chi square = 2 with 2 degrees of freedom
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Age of workers

Distribution of workers by age is shown in table 28. More than 50 percent of the workers are in the age bracket 25—34. The number of teen-agers among the workers is very small (.59 percent). Overall, about 80 percent workers are below 40 years of age.

Table 28

Percentage Distribution of Workers by Their Present Age

Present age	Percentage
16—19	0.59 (19)
20—24	10.48 (337)
25—29	29.28 (942)
30—34	23.50 (756)
35—39	15.98 (514)
40 +	20.17 (649)
Total	100.00 (3217)

Mean present age : 32.58

Column percentages may not add to 100.0 to rounding error.

Figures in parentheses indicate frequencies.

CHAPTER 4

ORGANIZATIONAL DETERMINANTS

Organizational determinants are related to variables that fall within the perview of population policy programs. As such, the family planning workers' performance may reasonably be expected to be influenced by both the qualitative and quantitative aspects of those determinants.

Workers' visits

Distribution of upazilas cross-classified by workers' performance and by the mean number of Family Welfare Assistants (FWAs) visits received by women during the last three months, is presented in table 29. The percentages of upazilas in the two FWAs' visit categories (<2, 2+) that belong to the high performance area are not considerably different (27.3 percent and 37.5 percent respectively). The difference in percentages is also not substantial for the low performance area and is even lower for the medium performance area. This lack of substantial variation between the percentages across the the FWAs visit categories implies absence of a significant association. The chi square value of 1.92 with 2 degrees of freedom indicates that the hypothesis of no association cannot be rejected even at 30 percent level of significance.

Table 29

Percentage Distribution of Upazilas by Workers' Performance and by Mean Number of Visits Received From FWA during the Last Three Months

Workers' Performance	<2	2+	Total	Mean
High	27.27 (12)	37.50 (21)	33	2.11
Medium	31.82 (14)	33.93 (19)	33	2.15
Low	40.91 (18)	28.57 (16)	34	2.14
Total	100.00 (44)	100.0 (56)	100	

Chi Square = 1.92 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

The variables—workers' performance and mean number of Health Assistants (HAs) visits have been cross-classified in table 30. The percentages of upazilas in the two HA visit categories (<1.3 and 1.3 +) which belong to the high performance area do not vary significantly. This is also true for medium and low performance areas. Also the chi square value of 1.04 with 2 degrees of freedom implies that the variables are highly unlikely to be significantly associated.

Table 30

Percentage Distribution of Upazilas by Workers' Performance and by Mean Number of Visits Received From HAs During the Last Three Months

Workers' Performance	Number of Visits Received			Mean
	<1.3	1.3+	Total	
High	34.43 (21)	28.95 (11)	33	1.19
Medium	29.51 (18)	39.47 (15)	33	1.20
Low	36.07 (22)	31.58 (12)	34	1.31
Total	100.0 (61)	100.0 (38)	100	

Chi square=1.04 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Acquaintance with FWA

Distribution of women by whether or not they know the family planning workers i. e. the FWAs working in their respective areas, is given in table 31. A vast majority (81.6 percent) of women claimed to have known the FWA in their areas.

Table 31

Percentage Distribution of Currently Married Women by Acquaintance with FWA

Acquaintance	Percentage
Yes	81.6 (4663)
No	18.4 (1050)
Total	100.0 (5713)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Subjects of Discussion with FWA

Women were asked about the topics on which the FWAs discussed with them at the time of their (FWAs') last visit. Table 32 shows that the largest percentage (25.1 percent) of women mentioned advantage of small family and use of family planning method as the topics of discussion in the FWAs' last visit, followed by advice to use clinical method (22.5 percent). Side effects, complications etc. were mentioned by 15.4 percent of women followed by advice to use non-clinical method by 14.9 percent. The FWAs, in their last visit, discussed with 6.2 percent of women about the MCH care.

Table 32

Percentage Distribution of Currently Married Women by Subjects of FWAs' Discussion

Subjects	Percentage
Advantage	25.1 (809)
Advised to use non-clinical method	14.9 (482)
Clinical Method	22.5 (725)
MCH care	6.2 (201)
Remedy of side effects	15.4 (496)
Advice to use medicine	0.4 (12)
Others	15.5 (502)
Total	100.00 (3227)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Period since last visit of FWA

The overall mean period since last visit of FWAs in all the 100 upazilas, as reported by women is 1.6 months (table 33). In 44 percent of the upazilas, the mean period since last visit is less than 1.5 months, while in 56 percent of the upazilas, it is 1.5 months or more.

Table 33

Percentage Distribution Of Currently Married Women by Period Since Last visit of FWA

Mean period since last visit	Percentage
<1.5	44.00 (44)
1.5+	56.00 (56)
Total	100.00 (100)

Overall mean period since last visit is 1.55 months.

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Benefits received from FWA

Table 34 shows the distribution of women by whether or not they received any benefit from the FWAs other than discussion or advice. We observe that about 90 percent of women did not benefit in any other way from the FWAs. Only about 10 percent said they did. These other benefits include: referral to clinic/ hospital for clinical family planning method, referral for MCH service, distribution of pill, distribution of vitamin tablets and tablets for children and others for diseases and card checking and preparation of ORS.

Table 34

Percentage Distribution of Currently Married Women by Benefits Other than Discussion and Advice Received From FWA

Benefit received	Percentage
No	90.3 (3635)
Yes	9.7 (392)
Total	100.0 (4027)

Column percentage may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Acquaintance with FWW/HA

Distribution of women by whether or not they know the FWW/HA working in their respective areas, is presented in table 35. A majority of women (58.5 percent) said that they know the FWW/HA who works in their areas. The percentage of the respondents who replied in the negative is 41.5.

Table 35

Percentage Distribution of Currently Married Women by Acquaintance with FWW/HA

Acquaintance	Percentage
Yes	58.5 (3402)
No	41.5 (2418)
Total	100.0 (5820)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies

Subjects of Discussion with FWW/HA

Women were asked about the subjects which the FWW/HA discussed with them at the time of his (FWW's/HA's) last visit. Table 36 shows that the largest percentage (28.2 percent) of women mentioned that the FWW/HA enquired of them (women) about fever followed by giving house number and signing cards (26.4 percent). A small percentage (13.2 percent) mentioned that they were enquired of general health and even a smaller percentage (11.8 percent), of children's health.

Table 36

Percentage Distribution of currently Married Women by Subjects of HAs' Discussion

Subjects	Percentage
Inquired about children's health	11.8 (230)
Inquired about general health	13.2 (259)
Giving house no. & other (card signature)	26.4 (517)
Inquired about fever	28.2 (551)
Others	20.4 (400)
Total	100.0 (1957)

Column percentages may not add to 100.0 due to rounding error. Figures in parentheses indicate frequencies.

Contraceptives supplied by FWA

Table 37 presents the distribution of women by the type of contraceptives they reported they were supplied by the FWA at the time of her (FWA's) last visit. An overwhelming majority of women (93.3 percent) reported that they had not been given any contraceptive at the time of her (FWA's) last visit. That pills were given—was mentioned by 4.3 percent of women while condom was mentioned only 1.3 Percent. A few women (1.2 percent) said that they were given other types of contraceptives.

Table 37

Percentage Distribution of Currently Married Women by Type of Contraceptives received

Type of Contraceptives	Percentage
No contraceptive	(3246)
Condom	(44)
Pill	4.3 (149)
Others	1.2 (41)
Total	100.0 (3480)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Benefits received from FWW/HA

Questions were asked of women to see whether, and if so, what benefits they received from the FWW/HA, besides discussion or advice. Table 38 shows that more than one third of women said that they had received no such benefit from the FWW/HA. About 46 percent of women mentioned that they had received vitamin tablets from FWW/HA and about 18 percent said they had received other benefits that include : injection for child, distribution of ORS and medicine, dispensing vitamin tablets and blood slide collections

Table 38

Percentage Distribution of Currently Married Women by Benefits Received from FWW/HA

Benefit received	Percentage
No	36.0 (1089)
Vitamin tablet	46.1 (1395)
Others	17.9 (542)
Total	100.0 (3026)

Column percentages may not add to 100.0 due to rounding error. Figures in perentheses indicate frequencies.

Visits of UHFPO

Family planning workers were asked whether the upazila health and family planning officer (UHFPO) had ever visited their areas. Table 39 shows that about 65 percent of the workers replied in the affirmative while the rest 35.2 percent said that the UHFPO had never visited their respective areas.

Table 39

Percentage Distribution of Workers by Ever Visit of UHFPO

Ever visit	Percentage
Yes	64.8 (2114)
No	35.2 (1146)
Total	100.0 (3260)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 40 shows the distribution of upazilas cross-classified by the workers' performance and by the percentage of workers in upazilas who reported that the UHFPO made 3 or more visits during the last three months. For example, the frequency 21 in the first cell implies that there are 21 upazilas, belonging to the high performance area, in each of which, less than 50 percent of its family planning workers reported that the UHFPO had made 3 or more visits during the last three months. This we did to obtain a measure for upazilas from the information provided by the workers. The percentages of upazilas in the less than 50 percent category and in the 50 percent or more category, that belong to the high performance area, are 33.9 and 31.6 respectively with a difference of only 2.3 points. The differences in percentages along with the medium performance row as well as along with the low performance row are also not appreciable to the extent that we can infer a significant association between the variables. The chi square value of .05 with 2 degrees of freedom implies that the likelihood is very low that the two variables are significantly associated.

Table 40

Percentage Distribution of Upazilas by Workers' Performance and By Percentage of workers who Reported 3 or more UHFPO Visits

workers' Performance	Percentage of workers reporting 3 or more visits			
	<50	50◆	Total	Mean
High	33.87 (21)	31.57 (12)	33	2.44
Medium	32.25 (20)	34.21 (13)	33	2.40
Low	33.87 (21)	34.21 (13)	34	2.46
Total	100.00 (62)	100.00 (38)	100	

Chi square= .05 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error

Figures in parentheses indicate frequencies.

Table 41 shows the distribution of workers by their reported period since last visit by UHFPO. A vast majority (74.9 percent) of the workers reporting ever visit of UHFPO, mentioned that the UHFPO had visited within one month prior to the date of interview, within two months was mentioned by 16.4 percent of the workers. Only a few workers (8.7 percent) reported that the UHFPO made visits more than two months ago.

Table 41

Percentage Distribution of Workers by Period Since Last Visit of UHFPO

Period in months	Percentage
1	74.9 (1340)
2	16.4 (294)
3	4.1 (73)
4	1.7 (30)
5	2.9 (51)
Total	100.0 (1788

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Distribution of workers by the time in hours the UHFPO spent with them in his last visit as reported by the workers themselves, is presented in the table 42. It appears that a majority of the UHFPO preferred to spend an hour with the workers (67.7 percent). That the UHFPO spent two hours was mentioned by 19.2 percent of the workers. As the number of hours increases, the percentage of workers tapers off rapidly.

Table 42

Percentage Distribution of Workers by Time in Hours Spent by UHEPO in the Last Visit

Time spent (in hours)	Percentage
0	3 (5)
1	67.7 (1237)
2	19.2 (351)
3	7.4 (136)
4	2.4 (44)
5	1.3 (23)
6	0.7 (13)
7	1.0 (19)
Total	100.0 (1828)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 43 shows the distribution of workers by the number of jobs (works) the UHFPO did at the time of his last visit. These jobs include Supervising work, discussing about FP work/distributing contraceptives, discussing about health work/ distributing medicine, discussing MCH/cleanliness public health, following up ligation, copper T. patients, advising precautionary measures against diarrhoea, discussing with people for motivation towards family planning, checking work diary/progress visiting clinics/rural dispensary, discussing precautionary measures against flood oriented diseases/preparation of oral saline and checking whether clients take oral pill regularly. The table shows that the largest proportion of workers (44.2 percent) reported that the UHFPO did two of the above jobs followed by one job (34.5-percent) and then by three jobs (18.4 percent), Very few workers have reported other number of jobs tc have been done by the UHFPO at the last visit.

Table 43

Percentage Distribution of workers by Numbers of jobs Done by UHFPO During the Last Visit.

Number of jobs done	Percentage
0	0.4 (8)
1	34.5 (652)
2	44.2 (835)
3	18.4 (347)
4	2.5 (48)
5	0.1 (1)
Total	100.0 (1891)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Visits of FPO

Questions were asked of the FPAs, Dais, FWVs, and FWAs as to whether the family planning officer of their respective areas ever visited their areas. Responses are presented in table 44. A large majority (78.7) of the workers mentioned that the FPO did ever visit their areas. The rest said that the FPO had never visited their areas.

Table 44

Percentage Distribution of Workers by Ever Visit of FPO

Ever Visit	Percentage
Yes	78.7 (1680)
NO	21.3 (456)
Total	100.0 (2136)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Table 45 presents the distribution of workers (FPA, Dai, FWV and FWA) of all the upazilas, by their reported number of visits made by the FPO in their respective areas during the last three months. The model visit is 2 (23.4 percent). Visits 1 and 3 are also not very infrequent (19.0 percent and 22.7 percent). The percentage falls quite rapidly for other number of visits.

Table 45

Percentage Distribution of Workers by Number of FPO Visit During Last Three Months

Number of FPO visits	Percentage
0	6.2 (102)
1	19.0 (312)
2	23.4 (384)
3	22.7 (372)
4	7 3 (120)
5	4.5 (74)
6	7.1 (116)
7	9.6 (158)
Total	100.0 (1638)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

To investigate its possible association with the workers' performance, percentage of workers who reported that the FPO made four or more visits during the last three months, has been cross-classified with workers' performance in table 46. The table shows that the percentages of upazilas in the less than 30 percent category, and 30 or more category are considerably different (23.21 and 46.51 respectively). This differential is about 10 percentage points for the medium performance area and 14 percentage points in the low performance area. The chi square value is 6.00 with 2 degrees of freedom that implies that a significant association between the variables might exist in the population.

Table 46

Percentage Distribution of Upazilas by Workers' Performance and by Percentage of Workers Reporting Four or More FPO Visits During the Last Three Months

Workers' Performance	Percentage of workers reporting four or more visits			
	<30	30+	Total	Mean
High	23.21 (13)	46.51 (20)	33	3.28
Medium	37.50 (21)	27.90 (12)	33	2.63
Low	39.28 (22)	25.58 (11)	33	2.64
Total	100.00 (56)	100.00 (4 3)	99	

Chi square = 6·00 with 2 degrees of freedom,
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Distribution of workers (FPA, Dai, FWV, FWA) by the time period during which the FPOs have been reported to have visited them (workers), is presented in table 47. A great majority of workers (74.5 percent) stated that they were visited by their respective FPOs within the last week. The percentage of workers who said they were visited within one and a half months to 2 months is 17.6. A very small proportion of workers reported that they were visited more than two and a half months ago.

Table 47

Percentage Distribution of Workers by Period Since last Visit of FPO

Period (In Months) since last visit	Percentage
1	74.5 (1112)
2	17.6 (263)
3	3.8 (57)
4	1.4 (21)
5	2.6 (39)
Total	100.0 (1492)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Duration of time, the FPOs have been reported by the above workers to have spent with them (workers) is presented in table 48. The highest percentage of workers (51.1 percent) have said that FPOs of their respective areas have spent one hour with them, followed by those (25.6 percent) who reported two hours of visit. About 14 percent of the workers mantioned 3 hours.

Table 48

Percentage Distribution of WorKers by Time (in Hours) Spent by FPO in the Last Visit

Time (in hours) spent	Percentage
0	0.3 (4)
1	51.1 (765)
2	25.6 (383)
3	13.9 (208)
4+	9.2 (138)
Tota.	100.0 (1498)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies

Distribution of workers by their reported number of jobs (works) done by the FPO at the time of his (FPO's) last visit, is presented in table 49. These jobs include inspecting field work, checking work, visiting copper-T/ligation/pill clients, advising people on FP/MCH/public health, discussing about complicacies of pill/ ligation/copper-T clients, enquiring about difficulties in field work, advising couples to motivate and advising to ensure supply of contraceptives/medicines. It appears from the table that more than 85 percent of the workers reported that the FPOs did one or two jobs. Only 13.7 percent of the workers said that the FPOs did 3 or more jobs.

Table 49

Percentage Distribution of Workers by Number of Jobs Done by FPO During the Last Visit

Number of jobs done by FPO	Percentage
1	40.7 (634)
2	45.6 (710)
3 +	13.7 (214)
Total	100.0 (1558)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Visits of HI

AHIs, FNWs and HAs were asked about the ever-visit of the health inspector in their respective areas. The responses are presented in table 50. The table shows that an overwhelming majority of these workers (93 percent) have reported that the HIs ever-visited their respective areas.

Table 50

Percentage Distribution of Workers By Ever Visit of HI

Ever visit	Percentage
Yes	93.1 (1030)
No	6.9 (76)
Total	100.0 (1106)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

When asked the number of times the HIs visited their respective areas during the last three months, the largest percentage (24.9 percent) of these workers reported 7 visits, followed by workers (23.3 percent) who mentioned 3 visits (table 51). 2 visits and 6 visits were mentioned by 15.6 percent and 13.2 percent respectively of the workers.

Table 51

Percentage Distribution of Workers by Number of HI Visits During Last Three Months

Number of Visits	Percentage
0	1.1 (11)
1	8.9 (91)
2	15.6 (159)
3	23.3 (238)
4	6.9 (71)
5	6.2 (63)
6	13.2 (135)
7	24.9 (254)
Total	100.0 (1022)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 52 presents the distribution of workers by the time period during which the last visit of the HI occurred, as reported by the workers. As can be observed from the table, a majority of the workers (59.0 percent) failed to remember the period within which the HI visited them. That the visit occurred within the last one month was mentioned by 27.4 percent of the workers. Another 11.2 percent of the workers said that the HI visited them within the last one and a half months.

Table 52

Percentage Distribution of Workers by Period Since Last Visit of HI

Period (in month) since last visit	Percentage
0	59.0 (573)
1	27.4 (266)
2	11.2 (109)
3+	2.4 (24)
Total	100.0 (972)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

A great majority of the workers (65·3 percent) reported that the HI spent one hour with them in his last visit (table 53). The percentages mentioning two hours and three or more hours are respectively 22·5 and 11·9

Table 53

Percentage Distribution Of Workers by Time (in Hours) Spent by HI Durning the Last Visit

Time (in hours) spent	Percentage
0	0·3 (3)
1	65·3 (648)
2	22·5 (223)
3+	11·9 (118)
Total	100·0 (992)

Column percentages may not add to 100.0 due to ounding error.

Figures in parentheses indicate frequencies.

When asked about the number of jobs the HI did in his last visit, more than 75 percent of the workers reported one or two jobs while 19·5 percent mentioned 3 jobs (table 54). These jobs include inspecting field work/signing card, visiting cholera affected area/attending cholera/malaria patients, advising public for accepting FP method, demonstrating oral saline preparation, discussing health education, discussing family planning, enquiring whether blood slides were taken/distributing contraceptives, enquiring about cholera/malaria patients, advising precauitlonary measures against cholera/vaccination to children, using oral and others.

Table 54

Percentage Distribution of Workers by Number of Jobs Done by HI During the Last Visit

Number of Jobs done	Percentage
0	0.6 (6)
1	30·1 (305)
2	46·5 (471)
3	19·5 (197)
4+	3·3 (33)
Total	100.0 (1012)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Joint visit with AHI

The FWW/HA was asked whether the AHI had made any household visit jointly with him during the last month. Table 55 shows that more than 80 percent of the FWW/HA reported that their respective AHI made joint household visit with them during the last month.

Table 55

Percentage Distribution of FWW/HA by Their Joint Visit with AHI

Joint visit	Percentage
Yes	81.5 (716)
No	18.5 (162)
Total	100.0 (878)

Column percentage may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

The FWW/HA was also asked as to the number of jobs the AHI did at the time of his last visit. The jobs include: Supervising work (house to house), inspecting cholera patients, asking about hooping cough patients, advising to take care of respective areas, treating malaria patients, advising villagers on cleanliness, distributing medicine, helping to do work and giving advice. Table 56 shows that over 80 percent of the workers reported that the AHI did one or two jobs. Another 15.6 percent mentioned about 3 jobs.

Table 56

Percentage Distribution of FWW/HA by Number of Jobs done by AHI During the Last Visit

Number of jobs done	Percentage
0	0·4 (3)
1	36·3 (259)
2	46·8 (334)
3	15·6 (111)
4	0·8 (6)
Total	100·0 (713)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Joint visit with FPA

FWAs were asked the number of joint household visits their respective FPAs made with them during the last month. Table 57 shows that the largest percentage of FWAs (24·7 percent) mentioned about 4 joint visits. Only about 25 percent reported 5 or more joint visits. No joint visit was mentioned by 8·9 percent of the FWAs.

Table 57

Percentage Distribution of FWAs by Their Joint Visits with FPA During the Last Month

Joint visit	Percentage
0	8·9 (87)
1	9·7 (95)
2	17·9 (175)
3	14·5 (141)
4	24·7 (241)
5	5·4 (53)
6	5·3 (52)
7	13·4 (131)
Total	100·0 (975)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Distribution of contraceptives

When asked about the amount of condom an FWA delivers at a time to her client, we observe from table 58 that a majority of respondents (57·2 percent) reported that the FWAs supply two dozens of condom at a time to their respective clients. Only a quarter of the FWAs give one dozen at a time while 17 percent give 3 or more dozens of condom at a time.

Table 58

Percentage Distribution of FWAs by Dozens of Condom They Give a Client at a Time

Dozens of condom	Percentage
1	25·8 (251)
2	57·2 (556)
3	13·1 (127)
4 +	3·9 (38)
Total	100·0 (972)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

The same question was asked on pill and Emko. A little over 85 percent of the FWAs supply three cycles of pill at a time (table 59) while about 68 percent give one vial of Emko at a time (table 60). About a third of the FWAs (30·7 percent) do not give any Emko at all to their clients.

Table 59

Percentage Distribution of FWAs by Cycles of Pill They Give a Client at a Time

Cycles of pill	Percentage
1	11.5 (111)
2	2.1 (20)
3	85·4 (828)
4+	1·0 (10)
Total	100.0 (969)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Table 60

Percentages Distribution of FWAs by Vials of Emko They Give a Client at a time

Vials of Emko	Percentage
0	30.7 (299)
1	67.9 (611)
2	1.4 (14)
Total	100.0 (974)

Column percentages may not add to 100.0 due to rounding error. Figures in parentheses indicate frequencies.

Table 61 shows that 78.4 percent of FWAs resupply condom to their clients one month after their previous delivery, while 61,1 percent of FWAs resupply pills after three months (Table 61). Resupply of pills after one month is made by about 23 percent. In case of Emko (table 63), more than 73 percent of FWAs make the refil within a period of less than two months.

Table 61

Percentage Distribution of FWAs by Period (in Months) of Resupply of Condom

Period (in months) of resupply	Percentage
0	1.8 (18)
1	78.4 (763)
2	6.9 (67)
3	12.6 (123)
4	0.2 (2)
Total	100.0 (973)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 62

Percentage Distribution of FWA by Period (in months) of Resupply Pill

Period (in months) of resupply	Percentage
0	4·2 (40)
1	22·9 (219)
2	11·5 (110)
3	61·1 (585)
4 +	0.4 (4)
Total	100.0 (958)

Column percentages may not add to 100.0 due to rounding error. Figures in parentheses indicate frequencies.

Table 63

Percentage Distribution of FWA by Period (In Months) of Resupply of Emko

Period (in months) of resupply	Percentage
0	35.8 (342)
1	41.5 (396)
2	8.8 (84)
3	12·8 (122)
4 +	1·1 (11)
Total	100.0 (955)

Column percentages may not add to 100.0 due to rounding erro
Figures in perentheses indicate frequencies.

MCH Knowledge

Table 64 shows the distribution of upazilas by workers' performance and by mean MCH knowledge score of those upazilas. Each worker of the selected unions of an upazila was given a battery of 11 topics relating to the knowledge of MCH. Against each topic, there were a number of preassigned statements, each of which is expected to measure knowledge of that topic. Each of these statements was assigned a weight of 1. The number of statements was not constant for all the topics. For all the topics, the maximum value that a worker could score is 55. The minimum values would be zero for a worker who knew none of the statements. The total score of all the workers of all the selected unions of an upazila was divided by the total number of workers, of selected unions, to obtain the mean score. which was then used as an estimate of the mean MCH knowledge score of that upazila.

The overall mean MCH knowledge score for all the upazilas is 19.04. As can be observed from the table, the percentage of upazilas in the two categories of the mean score, that belong to the high performance area do differ by about 10 points. The percentages along the low performance row also differ quite substantially. Overall, a greater percentage of upazilas in the higher mean score category do belong to the high performance area and a greater percentage of upazilas in the lower mean score category belong to the low performance area. The chi square value of 7·26 with 2 degrees of freedom suggests that a significant association between the variables may exist in the population.

Table 64

Percentage Distribution of Upazilas by Workers' Performance and By Their Mean MCH Knowledge Score

Workers' Performance	Mean MCH Knowledge score			
	<19	19 +	Total	Mean
High	28.57 (16)	38.64 (17)	33	19.74
Medum	33.93 (19)	31.82 (14)	33	18.90
Low	37.50 (21)	29.54 (13)	34	18.59
Total	100.00 (56)	100.00 (44)	100	

—Chi square = 7·26 with 2 degrees of freedom, Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

FP knowledge

Distribution of upazilas by workers' performance and by mean FP score of those upazilas presented in table 65 The procedure of obtaining the mean FP knowledge score in the same as that used for the MCH knowledge score. The overall FP knowledge for all the upazilas is 10. 40.

The table shows that 37.5 percent of upazilas with higher (10.4 +) mean FP knowledge score belong to the high performance area while 28.9 percent of upazilas with lower mean FP knowdge score (<10.4) belong to the high performance area. For the medium performance area, these percentages are 31.3 and 34.6 respectively while for low performance area, the percentages are 31.3 and 36.5 respectively. Thus, a lack of a notable trend is evident, specially when the percentages in the column corresponding to 10.4+ are compared. The chi square of .85 with 2 degrees of freedom indicate that the two variables are unlikely to be significantly associated.

Table 65

Percentage Distribution of Upazilas by Workers' Performance and by Their Mean FP Knowledge Score

Workers' Performance	Mean FP Knowledge score			
	<10.4	10.4+	Total	Mean
High	28.85 (15)	37.50 (18)	33	10.27
Memdium	34.61 (18)	31.25 (15)	33	10.30
Low	36.54 (19)	31.25 (15)	34	9.91
Total	100.00 (52)	100.00 (48)	100	

Column percentages may not add to 100 0 due to rounding error.
Figures in parentheses indicate frequencies.

Union Population Control Committee

Table 66 shows that an overwhelming majority of the FPAs (94.5 percent) reported that the union population control committee (UPCC) has been formed in their respective unions. That at least 2 meetings of the UPCC had been held during the last two months was reported by about 40 percent of the FPAs while 78.8 percent of the EPAs reported that at least two meetings had been held during that period (table 67).

Table 66

Percentage Distribution of FPA by Whether Union Population Control Committee is Formed.

Whether UPCC formed	Percentage
Yes	94.5 (344)
No	5.5 (20)
Total	100.0 (364)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 67

Percentage Distribution of FPA by Number of UPCC Meetings Held

Number of UPCC Meetings Held	Percentage
0	21·2 (72)
1	38.5 (131)
2	33.2 (113)
3 +	7·1 (24)
Total	100.0 (340)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

The FPAs were asked how many of the following list of persons were the participants in those meetings: Chairman, Union Parished (UP) member, FPA/FWA, GHA/HA, High School teacher/Head master, Primary School teacher/Head master, member Secretary, Imam and social worker/Ex UP Member Ex-UP Chairman, Table 68 shows that about 96 percent of the FPAs reported that more than 4 of the persons mentioned above attended those meetings.

Table 68

Percentage Distribution of FPAs by Number of Participants in the UPCC Meeting Held During the Last Two Months.

Number of Participants	Percentage
0–4	3·8 (11)
5 +	96·2 (275)
Total	100.0 (286)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Stock of contraceptives

When asked whether there was any shortage of contraceptives (pill, condom, emko) in their respective areas during the last three months, a majority (55·5 percent) of the FPAs reported shortage (table 69).

Table 69

Percentage Distribution of FPAs by Whether There was Shortage of Contraceptives In Their Respective Areas

Whether there was Shortage	Percentage
No shortage	44.5 (165)
Shortage	55.5 (206)
Total	100.0 (371)

Column percentages may not add to 100·0 due to rounding error.
Figures in parentheses indicate frequencies.

Distribution of Contraceptives per worker

Table 70 shows the distribution of contraceptives per worker by methods and by workers' performance. As can be observed from the table, the distribution of condom per worker in the last three months preceding the interview date, is 33·1 dozen in the high performance area which is more than 30 percent higher than that in the medium performance areas as well as about 24 percent higher than that in the low performance area. During the same period, also the distribution of pill per worker in the high performance area—53·3 cycles-is more than 40 percent higher than that in the medium performance area and is more than 60 percent higher than that in the low performance area. For emko, the figures follow a different pattern. The highest per worker distribution of emko—·36 vials— is in the low performance area and the lowest—·22 vials - is in the medium performance area. The figure for the high performance area lies in between. The overall mean distribution of condom per worker, for all the 100 upzilas, is 28 4 dozen, of pill per worker is 41·1 cycles, and of emko per worker is ·30 vials. Overall, the distribution of condom and pill per worker is much higher in the high performance area than in the other two areas.

Table 70

Distribution of Contraceptives per Workers During the Last Three Months, by Workers' Performance and By Methods

Workers' Performance	Condom	Pill	Emko
High	33.10	53·33	0.31
Medium	25.40	37.67	0.22
Low	26.72	33.28	0.36
Mean	28·40	41·40	0·30

Case referred per worker

When cases referred during the last three calender months preceding the date of interview, are considered, a pattern more or less similar to that observed in case of distribution of contraceptives, appears to have emerged (table 71). The number of IUD cases (2·65) referred per worker is markedly higher in high performance area than in the medium or low (1.87 and 2.16 respectively) performance area. The number of vasectomy cases referred per worker in the high performance area (2.02) is more than twice that each of the medium (.96) and the low (·77) performance areas. In case of tubectomy the excess of high performance area over the medium performance are is 45 percent, and over the low performance area, is 44 percent. The overall mean cases referred per worker in the study areas during the last three months is 2·23 in case of IUD, 1·25 for vasectomy and 1 6 for tubectomy.

Table 71

Distribution of Cases Referred During The Last Three Months Per Worker by Workers' Performance and by Methods

Workers' Performance	Method		
	IUD	Vasectomy	Tubectomy
Hi9h	2·65	2·02	2·03
Medium	1·87	0·96	1.40
Low	2·16	0·77	1·41
Mean	2·23	1·25	1·60

Facilities Available in FWCs

Interviewers discussed with the FPAs and collected information as to whether government clinics exist in their respective unions. Table 72 shows that only about 50 percent of the unions do have family welfare centres. Even of these centres, 88 percent are understaffed by at least 20 percent (table 73).

Table 72

Percentage Distribution of Unions by Existence of FWC

Existence of FWC	Percentage
Yes	51.8 (204)
No	48.2 (190)
Total	100.0 (394)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Table 73

Percentage Distribution of Unions FWCs by Staff Strength

Staff Strength	Percentage
1	7.5 (15)
2	22.6 (45)
3	32.7 (65)
4	25.1 (50)
5	12.0 (24)
Total	100.0 (199)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies

When the medical assistant (MA) and FWVs of the FWCs were enquired of their building condition, only 68 percent reported that their respective buildings were fully complete while about 21 percent could not state the condition (table 74).

Table 74

Percentage Distribution of FWCs
by Building Condition

Building Condition	Percentage
Fully Complete	68.0 (140)
Partly Complet	11.2 (23)
Could not state	20.9 (43)
Total	100.0 (206)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 75 shows that a majority (53.4 percent) of the respondents (medical assistants and FWVs) reported that they do not have bathroom facilities in their FWCs. 'Good' bathroom condition was reported by 22.3 percent. To the rest, the bathoom condition is either bad or within tolerable limits.

Table 76

Percentage Distribution of FWCs
by Bathroom Condition.

Bathroom Condition	Percentage
Good	22.3 (43)
Tolerable	11.9 (23)
Bad	12.4 (24)
No	35.4 (103)
Total	100.0 (193)

Column percentages may not add to 100.0 due to rounding error. Figures in parentheses indicate frequencies.

That there is no latrine facilities for the males has been reported by 30.2 percent of the respondents (MA, FWV of the FWCs), while only 27.0 percent have reported the latrine condition to be good (table 76). Latrines for female are not available at a larger number (38.7 percent) of FWCs than latrines for male (Table 77). Like latrines for male, 27.4 percent of the FWCs have been reported to have latrines for female in good condition.

Table 76

Percentage Distribution of FWCs by Latrine (for Male) Condition

Latrine (for male) Condition	Percentage
Good	27.0 (51)
Tolerable	22.2 (42)
Bad	20.5 (38)
No	30.2 (57)
Total	100.0 (189)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Table 77

Percentage Distribution of FWCs by Latrine (For Female) Condition

Latrine (For Female) Condition	Percentage
Good	27.4 (51)
Tolarabl	17·2 (32)
Bad	16·7 (31)
No	38·7 (72)
Total	100·0 (186)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

There is no water facility in about 28 percent of the FWCs, while 58.9 percent of the FWCs have workable water facility (table 78). As can be observed from table 79, 73·8 percent of the FWCs have dispensary room and 77·5 percent have clinical room. Recovery room is not availabe in about 60 percent of the clinics while 77·1 percent of the FWCs run without laboratory room. About 80 percent of the FWVs do have office in their FWCs while medical assistants' office is not that frequent (59.3 percent). A majority of the FWCs (56·2 percent) do not have training or meeting room while 30·6 percent of the FWC's run without store room.

Table 78

Percentage Distribution of FWCs by Water Supply Condition

Water Supply Condition	Percentage
Workable	85·9 (113)
Not workable	13·5 (26)
No	27·6 (53)
Total	100.0 (192)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies,

Table 79

Percentage Distribution of FWCs by Available Facilities

Dispensary		Clinical	
Existence	Percentage	Existence	Percentage
Yes	73·8 (141)	Yes	77·5 (148)
No	26·2 (50)	No	22·5 (43)
Total	100.0 (191)	Total	100·0 (191)

Recovery Room		*Laboratory*	
Yes	40·6 (78)	Yes	22·9 (43)
No	59·4 (114)	No	77·1 (145)
Total	100·0 (192)	Total	100·0 (188)

MA's office room		*FWV's Office room*	
Yes	59·3 (115)	Yes	79·3 (153)
No	40·7 (79)	No	20·7 (40)
Total	100 0 (194)	Total	100·0 (193)

Contd.

Contd. Table No. 79

Training / meeting room			*Store room*
Yes	43.8 (84)	Yes	69.4 (134)
No	56.2 (108)	No	30.6 (59)
Total	100.0 (192)	Total	100.0 (193)

Column percentages may not add to 100.0 due to rounding error
Figures in parentheses indicate frequencies.

Contraceptive outlets/depot holders in Unions

Table 80 shows the distribution of unions by their number of contraceptive outlets. As is observed from the table a majority (57.2 percent) of the unions have 7 or more contraceptive outlets while about 10 percent do not have any contraceptive outlet. The rest of the unions have outlets ranging from 1 to 6. Distribution of unions by the number of depot holders as have been reported by FPAs is shown in Table 81. Most of the unions (83.6 percent) do not have depot holders.

Table 80

Percentage Distribution of Unions by Number of Contraceptive Outlets

Number of outlets	Percentage
0	19·1 (73)
1	4·2 (16)
2	4·4 (17)
3	4·4 (17)
4	2·9 (11)
5	4·2 (16)
6	3·7 (14)
7	57·2 (219)
Total	100·0 (383)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Table 81

Percentage Distribution of Unions
by Number of Depot Holders

Number of depot holders	Percentage
0	85.6 (333)
1	3·9 (15)
2	1.0 (4)
3	2·8 (11)
4	1.0 (4)
5	1.3 (5)
6	1.5 (6)
7	2.8 (11)
Total	100.0 (389)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Vacant positions of workers in Unions

While the position of FPA is lying vacant in only 3,6 percent of the unions, that of AHI is vacant in more than 8 percent of the unions (table 82). In case of FWA, 75.6 percent of the unions do not have any vacant position. The percentago of unions having one vacant position of FWA is 19.3 while the percentage of unions having two vacant positions of FWA is 4. 3. A very insignificant number of unions (.8 percent) have all the positions of FWA, vacant. The table also shows that a significant number of unions have vacancies for the position of FWW—26.7 percent of the unions have vacancies for one position of FWW while about 18 percent of the unions have vacancies for two or more positions. Position of dai is also lying vacant in about 40 percent of the unions,

Table 82

Percentage Distribution of Unions by Number of Vacant Positions of Domicilliary Staff

Vacant positios	Percentage
FPA	
0	96.4 (380)
1	3.6 (14)
Total	100.0 (394)
AHI	
0	91.7 (322)
1	8.0 (28)
2	0.3 (1)
Total	100.0 (351)

Continued Table No. 82

FWA	
0	75·6 (298)
1	19.3 (76)
2	4.3 (17)
3	0·8 (3)
Total	100.0 (394)
FWW	
0	55·5 (206)
1	26·7 (99)
2	14·6 (54)
3	3·0 (11)
4	0·3 (1)
Total	00·0 (371)

Continued Table No 82

Del	
0	60.7 (235)
1	20·2 (78)
2	10·9 (42)
3	8·3 (32)
Total	100.0 (387)

Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

Monthly performance report of unions

The family planning officers were consulted as to whether, and if so when, they have received the last month's performance report from the unions. If two of the selected unions of an upazila have been reported to have sent their performance report within the first week, that upazila has been classified as 'timely sending upazila'. Otherwise it has been categorized as 'not timely sending upazila'. Table 83 shows that more than 80 percent of the upazilas did not send reports within the first week.

Table 83

Percentage Distribution of Unions by Whether Their Last Month's Report was Sent in Time to FPO

Whether Timely Sending	Percentage
Timely sending	18·2 (71)
Not timely sending	81.8 (320)
Total	100.0 (391)

Column percentage may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

CHAPTER 5

ENVIRONMENTAL CONDITIONS

Environmental Conditions refer to those which are external to the organization. Favourable environmental factors e. g. religious leaders' support, are likely to influence the level of workers' performance.

Religious leaders' attitude towards FP activities

Table 84 presents the distribution of FPAs by their reported attitude of the religious leaders towards their (FPAs) activities. The table shows that more than 50 percent of the religious leaders are not sensitive to the family planning activities of the FPAs—they neither support nor create problems in their (FPAs') activities. Among the rest, the ratio of the number of those who create problems to the number of those who support is a little over 2. The table suggests a very low level of motivation among the religious leaders.

Table 84

Percentage Distribution of FPAs, by Whether Local Religious Leaders Help

Whether Religions Leaders help	Percentage
Help	16.2 (59)
Craetes Problem	32.8 (119)
Neutral	51.0 (185)
Total	100.0 (363)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Job satisfaction of workers

All the workers of the selected unions were asked about their job satisfation. About 39 percent of the workers reported that they would not change their present job for any other government job as field worker with the same salary structure (table 85). This is probably reflective of the fact that most of the workers are not dissatisfied with their present job.

Table 85

Percentage Distribution of Workers by Their Job Satisfaction

Job Satisfaction	Percentage
Not satisfied	7.1 (226)
Satisfied	92.9 (2967)
Total	100.0 (3193)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Communication with upazila headquarters

If a union is linked with the upazila headquarters by any pucca road, it has been classified as a good communication union. On the other hand, if it is linked by only kacha road and river, it has been classified as a bad communication union. Table 86 shows that more than 50 percent of the unions are 'bad' communication unions.

Table 86

Percentage Distribution of Unions by Type of Roadlinks with Upazila Headqurters

Roadlinks	Percentage
Good	46.9 (158)
Bad	53.1 (179)
Total	100.0 (337)

Column percentages may not add to 100.0 due to rounding error.

Figures in parentheses indicate frequencies.

Distance of unions from upazila headquarters

Workers' performance has been cross-classified with the average distance of the unions from the upazila headquarters in table 87. Information was collected on the distance of the selected unions from their respective upazila headquarters. These distances were averaged to get an estimate of the distance of the unions of an upazila from its headquarters. The overall mean of distance is 6.96 miles.

Table 87

Percentage Distribution of Upazilas by Workers' Performance and by Average Distance of Unions from Upazila Headquarters

Workers' Performance	Distance in Miles		
	<7	7+	Total
High	43.30 (22)	22.92 (11)	33
Medium	28,85 (15)	37.50 (18)	33
Low	28.85 (15)	39.58 (19)	34
Total	100.00	100.00	100

Chi square= 4.25 with 2 degrees of freedom.
Column percentages may not add to 100.0 due to rounding error.
Figures in parentheses indicate frequencies.

The percentage of upazilas that belong to the high performance area among those having lower average distance, is 43.3 while that among those having higher average distance, is 22.9. In the medium performance row, the percentages are 28.9 and 37.5 respectively—with a difference of about 9 percentage points. The difference along the low performance row is even more marked. The percentages are 28.9 and 39.6 respectively. Moreover, the existence of a trend - greater distance lower performance—is not far from clear. The chi square value of 4.25 with 2 degrees of freedom implies significance of association between the variables at 10 percent level of significance.

CHAPTER 6.

MULTIVARIATE ANALYSIS

It has been mentioned in chapter 2 that the dependent variable — couple years of protection per eligible couple (Y) has been cross-classified with independent variables, taken one at a time, and that the frequency chi square for each of these tables was calculated. If the value of chi square of a certain bivariate table indicated significance (at 20 percent level) of the association between the dependent variable and the independent variable forming the bivariate table, that independent variable has been used in the regression model. A higher level of significance than usual (5 percent level) has been used to avoid the risk of excluding the independent variables which might not affect the dependent variable singly but might do so in the presence of other independent variables. Only six variables qualified to be used in the regression model when the above choice procedure has been applied. These six variables are :

X_1 = Mean age at marriage of women.
X_2 = Mean duration of current use by women.
X_3 = Percentage of Muslims (amoug women).
X_4 = Percentage of non-users (among women)
X_5 = Percentage of workers reporting four of more FPO visits during the last three months.
X_6 = Mean MCH knowledge score of the workers.

The multiple regression model (variables standardized) used for identifying individual linear effect of the independent variables on the dependent variable is of the following form :

$$Y = B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + + B_6X_6.$$

The stepwise procedure has been used to obtain estimates of the B parameters. The technique employed (least squares) picks up that point in the vector space generated by all the linear combinations of all six x vectors which is the orthogonal projection of the Y vector into that vector space. As such, the Y vector and the estimated line are minimally distant. In stepwise procedure variables are entered in single steps. The variable that explains the greatest amount of variance in the dependent variable enters first, the variable that explains the greatest amount of variance in conjuction with the first, enters second and so on. The following table shows the variables, B coefficients, and squares of multiple corelation (R^2) at the inclusion of each new variable.

Table 88

Standardized Regression Coefficients and
Squares of Multiple Correlation (R^2)

Variables	*Beta*	R^2
Percentage of non-users (X_4)	0.28141	0.08262
Mean age at marriage (X_1)	0.21204	0.13910
Percentage of workers reporting 4 or more FPO visits (X_5)	0.15360	0.16694
Mean MCH knowledge score (X_6)	0.09271	0.17463
Mean duration of current use (X_2)	0.07487	0.17749

The other variable percentage of Muslims (X_3) has failed to add to R^2 significantly and as such been dropped from the equation.

As the table shows, the five variables do explain about 18 percent of the total variation in the workers' performance measured in terms of couple years of protec-

tion per eligible couple. The coefficient B_4 = -.28141 associated with the percentage of non-users implies that the predicted workers' performance increases by .28 standard deviation units for each standard deviation unit decrease in the percentage of non-users. This relationship is not far obvious. The lesser the percentage of non-users, the easier it is for the family planning workers to work, since in that case, a larger segment of the society is already motivated towards family planning activities and as such, markes the environment of the workers more conducive to work, with the consequent greater worker performance.

The coefficient associated with the mean age at marriage is .21204. In areas of lower mean age at marriage, the exposure to conjugal life for a fixed current age and for a fixed number of women in reproductive age, is higher and as such, the workers get a longer time span in those areas to work in. This is also likely to increase the level of their performance.

The variable—percentage of workers reporting four or more FPO visits—is indicative of the amount of supervision the workers receive from the family planning officers. It is likely that the higher the amount of supervision, the higher is the performance of the workers. The coefficient associated with this independent variable is .15360. The positive sign of this coefficient lends support to our expectation. The magnitude of the coefficent is also appreciable—the change of (standardized) the workers' performance with the unit change in the (Standardized) percentage of workers reporting four or more FPO Visits is 15·4 percent.

It may also reasonably be expected that the greater the mean MCH knowledge score of the workers X_6, the better would be their performance The sign and magnitude of B_6 implies that with the increase in the mean MCH knowledge, the workers' performance also increases and the rate of this increase is about 9 3 percent.

Finally, the mean duration of current use (X_2) decreases workers' performance at the rate of 7.5 percent. Workers' performance was measured in terms of CYP based on distribution data. As such, what appears more plausible is the increase in workers' performance with the increase in the mean duration of current use since the later should entail distribution of greater amounts of contraceptives which in turn, would increase CYP—the dependent variable. However, if the sterilization cases that reqire on further distribution and IUD cases that are unlikely to require further distribution within a short span of time e. g. one year—have contributed more in the calculation of the mean duration of current use than the

contraceptives that require time to time distribution, then the mean duration of current use is likely to be negatively related with workers' performance. The data on the methods used by women show that of the users of methods that require distribution as well as of IUD and sterilization users about 75 percent are sterilized and 7·5 percent are IUD users. The two figures when combined constitute 82·5 percent of the total users among the women.

CHAPTER 7

SUMMARY AND CONCLUSIONS

The objective of the study was to ascertain the factors, broadly of three different categories—background and other characteristics, organizational determinants and environmental conditions— responsible for differential performance of family planning workers in upazilas. Date on contraceptive distribution in the 465 upazilas in Bangladesh have been converted into couple years of protection (CYP). Then the first fifty and the bottom fifty from the list of upazilas obtained by arranging all the 465 upazilas in descending order of magnitude of the percent of target achieved measured in terms of CYP, have been selected as the PSUs. From each of the selected PSUs, four unions were selected at random. However, since three upazilas had less than four unions the union coverage was 396 instead of 400. Overall, a sample of 5838 currently married women of reproductive age were successfully interviewed. Within each union, systematic random sampling technique was used to select the USUs. Also, within each selected union, family planning workers of six different ranks (FPA, AHI, FWA, HA, FWV, and Dai) were chosen, on complete enumeration basis, as data source. The total number of FP workers interviewed successfully, was 2964. In addition to currently married women and family planning workers, union and upazila family planning office records were also used as data source.

In this study, the unit of analysis is the upazila. The upazilas were grouped into high, medium and low performance areas, the performance being measured in terms of CYP converted from actual contracptive distribution data. Variables suspected to be associated with the workers' performance, were cross-classified with the latter, and chi square calculated for the cross-classified tables. If a variable was found to be significantly associated with workers' performance or at least marginally not so, it has been used as an independent variable in the regression model.

The chapter on background characteristics includes a large number of variables pertaining to both women and workers. Among the whole range of variables considered, only four variables-mean duration of current use, percentage of non-users of contraception, the mean age at first marriage, and percentage of Muslim are found to be significantly associated (based on chi square values) with the workers' performance. All these four variables relate to currently married women.

The majority of the variables considered in this study belong to the organizational determinants. Only two variables—percentage of workers reporting four or more FPO visits during the last three months, and mean MCH knowledge score of the workers —were found to be significantly associated with the workers' performance.

None of the variables relating to the environmental conditions was found to have a significant association with the dependent variable, even at 20 percent level of significance.

The dependent variable—CYP per eligible women—was then regressed on the six variables found, on the basis of chi square values, significantly associated with the dependent variable. Percentage of non-users, mean age at marriage and mean duration of current use were found to be negatively influencing workers' performance while percentage of workers reporting four or more FPO visits and mean MCH knowledge score were found to be positively influencing workers' performance. The variable—percentage of Muslim women—was dropped from the multivariate analysis because of its insignificant contribution to the proportion of variance explained by independent variables.

The findings of this study have important bearings on the family planning program policies. It has identified the factors responsible for differential performance of the workers in upazilas. Probably the most important finding is that the supervision of the workers by the family planning officers significantly influences the workers' performance. Increasing supervision of the workers by family planning officers, might well be expected to produce the desired results. Also workers with better MCH knowledge have been found to perform better. Another important finding is that the workers' performance in an area is also, affected, though negatively, by the percentage of non-users of contraception in that area. The lesser the percentage of non-users the easier it is for the family planning workers to work, since in that case, a larger segment of the society is already motivated towards family planning actfvities and, as such, makes the envinonment of the workers more conducive to work with the consequent greater worker performance.

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