

The Importance of Field-workers in Bangladesh's Family Planning Programme

By Barbara Janowitz, Matthew Holtman, Laura Johnson and Dorace Trottier *

* Barbara Janowitz is Director, Health Services Research, Matthew Holtman was Senior Research Analyst, Laura Johnson is Research Analyst, and Dorace Trottier was Research Associate, all at Family Health International, Research Triangle Park, North Carolina, United States. Financial support for this study has been provided by the United States Agency for International Development (USAID) through Family Health International. The views expressed herein do not necessarily reflect those of USAID.

The high cost and low quality of services indicate that other models of service delivery need to be considered

Contraceptive use in Bangladesh has increased greatly from 19 per cent in 1983 to 45 per cent in 1993/94 (Mitra and others, 1994). This increase has been attributed to the initiation and expansion of a programme to provide information on family planning (FP) and maternal and child health (MCH) as well as the delivery of contraceptives to women in their homes (Cleland and others, 1994; Phillips and others, 1993; 1996). The government hired 13,500 field-workers in the period 1974-1976 to carry out this work, and supplemented their numbers by 10,000 between 1987 and 1990 (Hasan and Koblinsky, 1991). In addition to the 23,500 government outreach workers, there are an additional 7,000 who are employed by various non-governmental organizations (NGOs), bringing the total to over 30,000.

One explanation for the success of the home visit programme is that repeated visits not only provide a convenient source of family planning method supply, but also catalyse latent demand for methods through repeated dissemination of information. In support of this view, a number of studies have shown a strong statistical relationship between contact with family planning outreach workers and contraceptive utilization (Phillips and others, 1993; 1996; Hossain and Phillips, 1996), suggesting that demand for contraceptives would effectively collapse without the stimulus provided by repeated exposure to home visits. An alternative view, however, is that home visits serve primarily to lower the costs to women (in money and travel time) of using a contraceptive method, rather than to stimulate new demand for modern methods (Arends-Kuenning, 1997a). Home visits are important not because they generate demand for contraceptive methods, but because they provide a convenient source of supply for women who already are inclined to use them. While the home visit programme undoubtedly facilitated major advances in contraceptive utilization at its inception, one could argue that it now merely contributes to the continued isolation and immobility of women (Schuler and others, 1995; 1996).

Given the strong statistical relationship between on-going visits and contraceptive use that has been demonstrated in past research, one might expect to find that home visits include a good deal of discussion between field-workers and their clients, providing the kind of information that would tend to encourage adoption and continued use of contraceptive methods. Some researchers have shown, using data from the Matlab area, that some field-worker and client interactions are of high quality, involving engaged discussion of important issues (Simmons, 1996; Simmons and others, 1988). However, these high-quality interactions are probably not typical of the much larger government or NGO programmes. In a study of nine field-workers who visited 209 women, 40 per cent of women received no advice or service (Koblinsky and others, 1989; Brechin and others, 1990). In this study, the average work day was about five hours long. In a later study of six field-workers, the work day was only 3.8 hours long, so it would not be expected that the percentage of visits in which information was provided would be higher (Hasan and Koblinsky, 1991).

One reason for the conflicting evidence on the content of the interaction between field-workers and clients, and thus on the importance of the role of the field-worker, is that previous studies have been small and localized. This article fills that gap by exploring a large number of interactions among clients and field-workers over a broad geographic area, thus providing results which are more fully representative of the government programme than are previous efforts. This enables us to determine whether or not typical client and field-worker interactions include such information as would be expected to encourage acceptance and continued use of family planning. In addition, interviews with users of oral contraceptives provide their views on the quality and content of the field-worker visits.

More specifically, this article addresses what field-workers do in their interactions with clients to motivate them to adopt and continue to use contraception, and whether the clients value those interactions. Data from field-worker observations are used to determine if field-workers provide information relevant to the client's method use status. For example, the issue is addressed of whether field-workers actively promote method use and provide pertinent information on follow-up visits. Oral contraceptive survey data are used to document how clients feel about the information they receive, addressing whether clients depend upon the field-workers for counseling, or whether their needs could be met with fewer visits.

Thus, this article addresses various aspects of quality of care as outlined in the Bruce framework. We emphasize information provided to clients, including information on family planning methods and side-effects. We also consider the knowledge that the client displays of various topics that might have been covered in interactions, as well as the client's perspective on these interactions. Koenig and others (1997) also addressed quality of care issues and focused on the information provided to clients. While their study relied on the reports of clients, our article uses data on quality of care obtained, not only from the client but also from observations of client-provider interactions.

Methods

Three separate sources of data are used to develop the analysis. The first data set provides information that was collected as part of a study to calculate the costs of both the clinic and home service delivery programme of the government (Janowitz and others, 1996). Observational data on the interactions of field-workers with clients were collected between 1993 and 1994. Trained female observers accompanied 64 family welfare assistants to the field for an average of three days each, and recorded their travel time to and from the field and between households, the number of women they contacted, the duration of contact time with clients and whether they provided contraceptives or information about family planning or maternal and child health. The sample of field-workers was nationally representative. These data provide an unusually rich perspective on the types of information and services provided by the typical government field-worker, allowing inferences to be drawn about the role of field-worker visits in promoting contraceptive use.

A second data set provided information on the perspective of the field-workers' clients. This data set was developed for a study on the knowledge and attitudes of oral contraceptive users in Bangladesh and was also based upon a nationally representative sample (Population Development and Evaluation Unit and others, 1997). A baseline survey of rural oral contraceptive users visited by field-workers was conducted to determine the level of knowledge, attitudes and practices concerning specific issues of oral contraceptive compliance.

A third source of data provided information on willingness and ability to pay for doorstep delivery of contraceptives in two rural divisions of Bangladesh. Women who were identified as users of oral contraceptives in the log books of the field-workers were questioned about certain aspects of service delivery (Streatfield and others, 1997). Specifically, those women currently obtaining oral contraceptives from a field-worker were asked if they would find it a problem if the field-workers visited less frequently, and if so, why.

Analysis

Using data on observations of field-workers which were collected as part of the cost study, we developed a score based on the number of possible discussion and activity items that might be covered in various types of family planning visits. Each category of visits, for example those to continuing IUD users, received a score in percentage terms, with 100 denoting that all possible discussion and activity items were covered. MCH scores were also calculated, but separate scores were not calculated for different subgroups of women. An aggregate FP/MCH score was then calculated for each woman using the number of items in the component scores as weights. The impact of length of visits on the aggregate score was assessed for various subgroups of clients using Pearson's correlations.

Results

Table 1. Percentage of client visits for which various family planning topics/activities are covered, by type of client, Bangladesh

Family planning group	Screening checklist	Follow-up checklist	Motivated for family planning use	Discussed family planning	Method-specific discussion	Discussed side-effects	Motivated to go to FWC ^b /SC ^c	Gave supplies	N
Users									
Oral contraceptive acceptor	6.0	--	66.3	39.8	39.8	21.7	--	100.0	83
Condom acceptor	4.3	--	78.3	52.2	52.2	21.7	--	100.0	23
Oral contraceptive user	--	1.7	--	12.0	12.0	5.6	0.0	61.4	1,054
Condom user	--	0.0	--	11.3	12.0	2.1	4.2	60.6	142
Injectable user	--	16.9	--	7.7	7.3	13.5	18.1	--	260
IUD user	--	6.6	--	0.7	0.7	16.9	24.3	--	136
Vasectomy/tubectomy	--	--	--	0.0	0.0	3.3	--	--	269
Non-users									
Pregnant	--	--	2.3	3.3	3.8	--	--	--	213
With child (<6 months)	--	--	21.8	20.7	20.7	--	--	--	87
Other	--	--	43.8	33.2	32.6	--	--	--	644

Family Health International).

a = Percentages for activities deemed not relevant to the specific visit types are omitted.

b = Family welfare centre.

c = Satellite clinic.

Using information from the cost study, table 1 shows the percentage of field-workers who covered various family planning discussion items and activities for various types of family planning visits. The items that would be expected to be covered varied by type of visit; for example, women who accepted a method during the observed visit probably received motivation to use the method. These women were administered a screening checklist to determine eligibility for use and received information about methods and side-effects. In addition, each woman would be supplied with contraceptives. By contrast, a continuing user of oral contraceptives might be expected to receive additional information about family planning, to be motivated to go to a clinic for a clinical method, and to have the follow-up checklist administered by the field-worker.

Among new acceptors, most women received motivation to use family planning, but only 40-50 per cent were recorded as participating in a general discussion of family planning or a discussion about the specific method selected. Only 22 per cent were told about side-effects in that particular discussion. Although not shown in the table, such discussions were very rare among non-users. All new acceptors received supplies. Screening checklists were rarely used.

Among continuing users of condoms and oral contraceptives, about 60 per cent received supplies on the observed visit. This indicates that around 40 per cent of the oral contraceptive and condom users either were resupplied elsewhere or had supplies on hand from the previous visit. No more than 10-12 per cent received information on a topic that might have been expected to be discussed, such as general family planning, a particular method, or side-effects. Such information may have been provided on previous visits and was unnecessary, or else needed information was obtained from a source other than the field-worker. Referrals to a clinic were rarely made. Either there was little interest on the part of the field-worker in promoting clinical methods or the woman was satisfied and saw no reason for a referral. Use of the follow-up checklist was extremely rare. Similar results were found for users of injectables, although the checklist was more often used and there was a discussion of side-effects in a somewhat higher percentage of visits. In addition, referrals to a clinic were higher; this finding may be related to the greater likelihood of discussions about side-effects and therefore a greater need for clinical services.

Referral to a clinic and discussion of side-effects were highest in the IUD user group, but still occurred in only one quarter or less of the interactions. Again, these two results may be related. As would be expected, only a handful of visits with acceptors of sterilization involved any discussion of family planning.

Discussions with pregnant women about family planning were uncommon, indicating the lack of interest on the part of the woman or the worker's assessment that the woman would not be interested in such a discussion. Women with a young child who were not using family planning were more likely to receive information, but still only about 20 per cent received information on any one family planning topic. Finally, those non-users of family planning who were not pregnant and did not have a young child were the most likely to receive information, but even among this group, less than half received motivation to accept family planning on the observed visit.

Moreover, it needs to be pointed out that field-workers systematically exclude certain women from home visits. Client selection is apparent from the contraceptive use status of women visited by field-workers. Women visited by field-workers were far more likely to be practising contraception (especially pill users), and far less likely to be non-users or users of traditional methods than were women in the general population. For example, marginals of table 1 show that 39 per cent of women visited were either acceptors or users of oral contraceptives, more than twice the percentage reported in the DHS. While it may be argued that frequent home visits are a force to motivate women to use contraception, it should be mentioned that the women least likely to accept family planning, and the ones requiring the most effort to recruit, are also the least likely to be visited.

Table 2. Percentage of client visits for which various health topics are covered, by type of client, Bangladesh

Group	MCH ^a	Other health ^b	General welfare	N
Family planing user	0.9	9.0	68.5	1,967
Non-users				
Pregnant	58.2	55.9	61.5	213
With child (<6 months)	31.0	74.7	73.6	87
Other	7.9	19.7	60.1	644

Source: Data from research conducted in Bangladesh, presented in Janowitz, B. and others, 1996. Productivity and Costs for Family Planning Service Delivery in Bangladesh: The GOB Program (Research Triangle Park, North Carolina, Family Health International).

a = Includes pre/postnatal health, child health.

b = Includes expanded programme of immunization, diarrhoeal diseases, night blindness, anemia and nutrition.

Table 3. Percentage of possible family planning and health topics discussed, by type of client, Bangladesh

Family planning group	Family planning	Health	Total ^a	N
New acceptors				
Oral contraceptives/condom	46.2	22.0	38.2	106
Continuing users				
Oral contraceptives	16.3	25.6	19.4	1,054
Condom	15.0	23.7	17.9	142
Injectable	12.7	26.3	17.8	260
IUD	9.9	29.9	17.4	136
Vasectomy/tubectomy	1.1	29.1	15.1	269
Non-users				
Pregnant	3.1	58.5	30.8	213
With child (<6 months)	21.1	59.8	40.4	87
Other	36.5	29.2	32.9	644
Total	19.0	30.1	30.1	2,911

Source: Data from research conducted in Bangladesh, presented in Janowitz, B. and others, 1996. Productivity and Costs for Family Planning Service Delivery in Bangladesh: The GOB Program (Research Triangle Park, North Carolina, Family Health International).

a = Weighted by number of items in each score.

Table 2 shows the percentage of MCH and other health items covered in various types of visits. Women who were pregnant or who had a child less than six months old were far more likely than other women to receive information about MCH or health. These results might be expected, since it is pregnant women and women with young children who are most in need of health information. Family planning users rarely received health information. The category "general welfare" was about equal for all groups and appears to assess general concerns rather than to measure information on particular health items which are included in the specific health categories.

Scores for family planning, health and the aggregate for family planning and health are shown in table 3. The highest family planning scores were for acceptors and non-users with small children or other non-users. These are the visits during which women are most likely to be motivated to use family planning and in which information is provided. Scores for continuing users are low. This low score implies that either clients do not express a need for information or there is a lack of motivation to provide it on the part of the worker. It should be kept in mind that scores were low for all family planning users, indicating that of all possible topics only a small percentage was discussed. The health score was highest for those visits in which the woman was either pregnant or had a young child. For other groups, there was not much variation in the health scores.

Perhaps the most important finding is that the composite score peaks at about 40 per cent. While it could be argued that the maximum score is unduly inflated in that it contains items that do not necessarily need to be discussed, the point remains that few items are discussed.

Table 4. Average length of visit, and p-values for correlation of length and index of topics discussed, by type of client, Bangladesh

Family planning groups	Length of visit (minutes)		p-value	N
	Mean	Standard deviation		
New acceptors				
Oral contraceptives/condom	7.4	(8.3)	<.01	106
Continuing users				
Oral contraceptives	3.6	(5.2)	<.001	1,054
Condom	4.9	(5.7)	<.01	142
Injectable	3.5	(4.1)	.83	260
IUD	4.1	(5.0)	<.01	136
Vasectomy/tubectomy	3.0	(6.2)	.31	269

Non-users				
Pregnant	3.3	(3.1)	<.001	213
With child (<6 months)	5.3	(6.0)	.02	87
Other	4.2	(6.0)	<.001	644
Total	3.9	(5.5)	<.001	2,911

Source: Data from research conducted in Bangladesh, presented in Janowitz, B. and others, 1996. Productivity and Costs for Family Planning Service Delivery in Bangladesh: The GOB Program (Research Triangle Park, North Carolina, Family Health International).

Table 5. Percentage of oral contraceptive users who understand correct use of oral contraceptives and percentage who say they received information from field-workers in Bangladesh

Knowledge	Percentage correct (N=1,403)	Percentage who received information from field-workers (N=1,403)
Know correct time to start using oral pills	17.5	61.6
Takes pill every day	94.0	63.2
Know where to start in pack of pills	82.0	67.7
Know what to do if 1 pill is missed	37.2	na ^a
Know what to do if 2 pills are missed	7.7	na ^a
Know what to do if 3 pills are missed	8.8	na ^a
Know at least one contraindication	30.5	47.7 ^b
Heard about side-effects before using pill	86.2 ^c	45.5 ^d

Source: Data from Population Development and Evaluation Unit, IME-Division, Ministry of Planning, Government of the People's Republic of Bangladesh; Department of Statistics, University of Dhaka; Associates for Community and Population Research (ACPR); Family Health International and the Population Council (1997). Oral Contraceptive Compliance: KAP Baseline, Rural Bangladesh (Dhaka, ACPR).

a = Not asked.

b = 449 people; question asked of only clients who knew at least one contraindication.

c = 1,392 people.

d = 1,203 people; question asked of only clients who had heard about side-effects.

Table 4 shows the mean visit length (in minutes) according to type of visit, and the p-values associated with bivariate Pearson's correlations between visit length and the quality score, also by type of visit. Among users of resupply methods (except injectables), IUD users and non-users, the correlation is statistically significant. Thus, there is a positive association between visit length and quality for most types of visits. This result is not surprising and underlines the fact that more time is needed with clients in order to provide higher quality visits.

We used information obtained from observations of client-provider interactions to examine the length of visits and the information provided in visits as shown in tables 1-4. We now turn to an assessment of what clients know about oral contraceptives and the importance that they place on visits from field-workers using information on users of oral contraceptives from two surveys. Information on what users know about oral contraceptives provides a gauge of the knowledge that field-workers have about oral contraceptives and their skills in transferring that knowledge to their clients. Table 5 presents information on the percentage of oral contraceptive users who had correct information about various aspects of oral contraceptives, including when to start taking them, when to start a new pack and what to do about missed pills. In addition, the table shows the percentage of clients who reported that they got information on a particular topic from the field-worker. The percentage of users with correct knowledge varies greatly, with the least knowledge demonstrated in those categories related to when to start taking pills and what to do if more than one pill is missed. Since poor compliance is associated with higher failure rates (Trottier and others, 1994; Potter, 1991), the low percentage who knew what to do if pills were missed is of concern. Somewhat surprisingly, no more than two thirds of women responded in the affirmative that they had got information on a particular aspect of pill use from the field-worker. Since one of the jobs of the field-worker is to provide information, it might have been expected that these proportions would be higher. However, as the observational data have shown, interactions are short (table 4), and information about pills is provided in less than half of the interactions and only 12 per cent of the interactions are with continuing users (table 1).

The next two tables, from a different survey of oral contraceptive users, provide information on the importance to the client of on-going interactions with field-workers. Table 6 shows that the main reason that women say that they chose the field-worker as their source of supply is the convenience offered by field-worker visits. Although multiple responses were allowed, only about one quarter of the women responded that they chose the field-worker because they had faith in her. Table 7 shows the reactions of women to a suggestion that field-workers visit less frequently, once every six months rather than once every two months, and that they be supplied with additional pill cycles on each visit. Over 80 per cent of women saw no problem with the suggested schedule, and of the remaining 19 per cent, only a minority were concerned that getting advice on family planning would be difficult under such circumstances. Most of the respondents objecting to a different visit schedule did so on the grounds that being given more pills might result in their being lost or damaged. These findings strongly suggest that the field-worker is seen principally as a contraceptive supplier, not as a counselor. These findings agree with those in table 5 which show that a high proportion of clients of field-workers reported that they got information about the pill from sources other than field-workers. These findings are also in agreement with those in table 1 which showed that in only a minority of interactions was information on family planning provided. However, table 5 also showed that client knowledge is low. Thus, no matter where clients are getting their information about family planning, the information is not adequate.

Table 6. Reasons for choosing field-worker as source of pill supply among rural clients served by Government of Bangladesh field-workers

Reasons	Percentage ^a
Convenience of field-worker visits	96.1
Faith in field-workers	27.6
Access to other services from field-workers	6.6
Other sources not accessible	5.4
Supplies free of cost	5.1
Number of observations	497

Source: Data from Streatfield, K. and others, 1997. Increasing the Financial Sustainability of Family Planning Service Delivery in Bangladesh (Dhaka, Population Council, Bangladesh).

a = Multiple responses accepted. Percentages are weighted average of mean responses from Rajshahi Division (72 per cent weight) and Chittagong Division (28 per cent weight) based upon respective population concentrations.

Table 7. Reactions to suggestion that field-workers in Bangladesh visit once every six months and supply six cycles of pills

Reaction	Percentages ^a
No problem with suggested schedule	80.9
Pills could get lost or damaged if six cycles are received at once	14.2
Getting advice on family planning would be difficult	6.0
Number of observations	497

Source: Data from Streatfield, K. and others, 1997. Increasing the Financial Sustainability of Family Planning Service Delivery in Bangladesh (Dhaka, Population Council, Bangladesh).

a = Percentages are weighted average of mean responses from Rajshahi Division (72 per cent weight) and Chittagong Division (28 per cent weight) based upon respective population concentrations.

Discussion

Using data from three independent studies, we have shown that the length of client-provider interactions is short, that the percentage of visits in which various family planning and MCH topics are discussed is low, and that clients lack important information about the pill and that they do not put a high value on interactions with field-workers. The vast majority of clients view the field-worker programme as a convenience and not as an important source of information.

Our findings show even poorer quality of care services than those recently reported by Koenig and others (1997). In a survey conducted among women served by field-workers, but who were also part of a special project to improve public health and family planning services, women reported that visits were short (44 per cent reported that the visits were 5 minutes or less). They also reported that visits often did not involve discussions of family planning methods (26 per cent). In the more typical areas covered in this article, the observed length of visits was shorter, and observers noted a higher percentage of interactions with no discussion of family planning methods having taken place.

One important job of field-workers is to motivate non-users to adopt contraceptive use. Since all three of the studies reported on

are cross-sectional, it is not possible to determine if repeated home visits were successful in motivating some women to accept family planning. We do know that field-workers visit a disproportionately high number of users; thus, they select clients who are more likely to be users of family planning, as has been documented in previous research (Hossain and Phillips, 1996; Arends-Kuenning, 1997b). As a consequence, a high proportion of non-users do not receive visits from field-workers. Even when they are visited, interactions are short and discussions about family planning occur in less than a third of those interactions. Thus, our results indicate that field-workers are not doing a good job in motivating women to adopt contraceptive use.

Once women accept family planning, they need services to encourage them to continue use. Our results show that, with the exception of the small group of condom acceptors, a minority of women received information about a family planning method or about side-effects. In fact, over one third of users did not even receive supplies. Koenig and others (1997) point out this problem, and conclude that greater investments need to be made in improving the quality of field-worker services. They reached this conclusion because their findings indicate that quality of care is associated with higher contraceptive use. The important question is whether the cost of upgrading the quality of outreach services is worth the cost. Even if there is a positive association between quality of care and continuation of contraceptive use, the very low levels of quality found in this study indicate that the cost of quality improvements could prove to be high.

The Government of Bangladesh has two choices. It can either concentrate its resources on improving the quality of the field-worker programme, or it can change the service-delivery model. The apparent success of the home visit programme makes it difficult to scale back this programme, as there is concern that any scaling back will result in a decrease in contraceptive use. Nevertheless, its high cost and the low quality of services indicates that other models of service delivery need to be considered. There are indications that service delivery models are changing in Bangladesh. For example, Alauddin (1999) reports that small community clinics are beginning to offer both family planning and other health services, and many couples are encouraged to seek services at these locations. In the coming years, various models of service delivery are likely to be tested in Bangladesh, with a view to finding services of reasonable cost and quality, as well as high accessibility that can replace the home visit programme, particularly in areas of higher contraceptive use.

References

Alauddin, M. (1999). Personal communication in his role as Director of the Bangladesh office of Pathfinder, a United States-based service-delivery organization.

Arends-Kuenning, M. (1997a). "How do family planning workers' visits affect women's contraceptive behavior in Bangladesh?" Population Council Policy Research Division Working Paper No. 99. New York.

_____ (1997b). "The equity and efficiency of doorstep delivery of contraceptives in Bangladesh". Population Council Policy Research Division Working Paper No. 101. New York.

Brechin, S.J.G. and M.A. Koblinsky (1990). "Quality of care in community-based MCH-FP programmes: the field worker's perspective". International Centre for Diarrhoeal Disease Research, Bangladesh Working Paper No. 56.

Cleland, J., J. Phillips, S. Amin and G. M. Kamal (1994). The Determinants of Reproductive Change in Bangladesh -- Success in a Challenging Environment. World Bank Regional and Sectoral Studies (Washington DC, The World Bank).

Hasan, Y. and M. Koblinsky (1991). "Work routines of female family planning field workers (FWA) in rural Bangladesh". Paper presented at the International Centre for Diarrhoeal Disease Research, Bangladesh annual scientific conference, Dhaka, 26-28 October 1991.

Hossain, M. B. and J. Phillips (1996). "The impact of outreach on the continuity of contraceptive use in rural Bangladesh" *Studies in Family Planning* 27(2):98-106.

Janowitz, B., K. Jamil, J. Chowdhury, B. Rahman and D. Hubacher (1996). Productivity and Costs for Family Planning Service Delivery in Bangladesh: The GOB Program (Research Triangle Park, North Carolina, Family Health International).

Koblinsky, M., S. Griffey Brechin, S. Clark and M. Yousuf Hasan (1989). "Helping managers to manage: work schedules of field-workers in rural Bangladesh" *Studies in Family Planning* 20(4):225-234.

Koenig, M.A., M.B. Hossain and M. Whittaker (1997). "The influence of quality of care upon contraceptive use in rural Bangladesh" *Studies Family Planning* 28(4):278-89.

Mitra, S.N., M. Nawab Ali, S. Islam, A.R. Cross and T. Saha (1994). Bangladesh Demographic and Health Survey, 1993-1994 (Calverton, Maryland, National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International Inc.).

Phillips, J., M.B. Hossain, R. Simmons and M. Koenig (1993). "Worker-client exchanges and contraceptive use in rural Bangladesh" *Studies in Family Planning* 24(6):329-342.

Phillips, J., M.B. Hossain and M. Arends-Kuenning (1996). "The long-term demographic role of community-based family planning in rural Bangladesh" *Studies in Family Planning* 27(4):204-219.

Population Development and Evaluation Unit, IME-Division, Ministry of Planning, Government of the People's Republic of Bangladesh; Department of Statistics, University of Dhaka; Associates for Community and Population Research (ACPR); Family Health International and the Population Council (1997). *Oral Contraceptive Compliance: KAP Baseline, Rural Bangladesh* (Dhaka, ACPR).

Potter, L.S. (1991). "Oral contraceptive compliance and its role in the effectiveness of the method", in: J.A. Cramer and B. Spiker (eds.) *Patient Compliance in Medical Practice and Clinical Trials* (New York, Raven Press), pp. 195-207.

Schuler, S.R., S.M. Hashemi and A.H. Jenkins (1995). "Bangladesh's family planning success story: a gender perspective" *International Family Planning Perspectives* 21(4):132-137.

Schuler, S.R., S.M. Hashemi, A. Cullum and. M Hassan (1996). "The advent of family planning as a social norm in Bangladesh: women's experiences" *Reproductive Health Matters* 7:66-78.

Simmons, R. (1996). "Women's lives in transition: a qualitative analysis of the fertility decline in Bangladesh" *Studies in Family Planning* 27(5):251-268.

_____, L. Baqee, M. Koenig and J. Phillips (1988). "Beyond supply: the importance of female family planning workers in rural Bangladesh" *Studies in Family Planning* 19(1):29-38.

Streatfield, K., S. Kabir, K. Jamil, B. Janowitz and N. Faiz (1997). *Increasing the Financial Sustainability of Family Planning Service Delivery in Bangladesh* (Dhaka, Population Council, Bangladesh).

Trottier, D., L. Potter, B. Taylor and L. Glover (1994). "User characteristics and oral contraceptive compliance in Egypt" *Studies in Family Planning* 25(5):284-92.