

# Consequences of the Shift from Domiciliary Distribution To Site-Based Family Planning Services in Bangladesh

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**Context:** Concerns about financial sustainability and the need to offer a broader range of reproductive health services to clients have led the Bangladesh family planning program to shift from conventional door-to-door (domiciliary) distribution to static (fixed) site-based service delivery. However, it is of critical importance to carefully examine the consequences of the changeover on family planning performance.

**Methods:** Using data from the longitudinal surveillance systems of the Operations Research Project of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), a before-and-after analysis of the contraceptive prevalence, method mix, source mix, new acceptance rate and dropout rate was conducted to assess the consequences of the shift in service delivery approach.

**Results:** The shift from domiciliary distribution to clinic-based service delivery appears to have resulted in a slight increase in contraceptive prevalence in the urban study area, from 54–56% before the shift to 55–57% afterward. The changeover did not produce any discernable variation in the method mix, the proportion of new acceptors of family planning or the contraceptive dropout rate. This apparent lack of change can be explained by increased use of alternative sources, with a substantial rise among users in reliance on pharmacies and shops (30–35% before vs. 42–50% after). In two rural study areas, the shift from domiciliary distribution to service delivery from static sites known as cluster spots resulted in an increase in the prevalence rate, from 52% to 57% in Paira and from 40% to 45–46% in Durgapur. The changeover coincided with greater use of injectable contraceptives and decreased reliance on traditional methods among rural contraceptive users. A notable immediate increase in new acceptors also was evident, as was a long-term decline in dropouts. In Paira, following the shift, 43–44% of current users obtained their contraceptive supplies from cluster spots, as did 32–33% in Durgapur.

**Conclusions:** The recent change in the family planning program toward clinic-based delivery of an integrated package of essential health and family planning services appears likely to maintain, and perhaps even increase, contraceptive prevalence levels in Bangladesh.

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Over the past two decades, the Bangladesh family planning program has utilized a door-to-door community-based distribution approach to provide contraceptives to clients in their homes (referred to here as domiciliary distribution). About 23,500 female fieldworkers (family welfare assistants) in the government program, and another 12,000 fieldworkers within the family planning programs of the nongovernmental organizations, were employed to counsel, motivate and provide contraceptive services. They generally distributed oral contraceptives and condoms, and in a number of places they also provided injectable contraceptives.

These fieldworkers were supposed to visit routinely—once every two months—all currently married women of reproductive age within their specified catchment areas (in general, 700–800 women per worker). The fieldworkers were overseen by some 6,000 supervisors: 4,500 male supervisors (family planning in-

spectors) within the government program and 1,500 supervisors (mostly female) in programs operated by nongovernmental organizations.<sup>1</sup>

The domiciliary distribution of family planning services has been widely recognized as a key factor in the success of the Bangladesh program.<sup>2</sup> However, in recent years, this approach faced several challenges. First, because of increasing numbers of women in the reproductive age-groups, family planning coverage will have to expand from 27 million couples in 1995 to 40 million in 2005, and during the same period the number of contraceptive users will have to increase from 12 million to 28 million, if the national goal of replacement fertility is to be achieved by 2005.<sup>3</sup>

In addition, the program depends heavily upon donor contributions, which cover 63% of total costs.<sup>4</sup> Fieldworkers' salaries account for approximately 60–65% of these costs.<sup>5</sup> With donor funding expect-

ed to level off or be reduced, it would become increasingly difficult for the program to support enough staff to maintain the current level of client visitation by fieldworkers. Moreover, according to the Demographic and Health Surveys conducted in 1993–1994 and 1996–1997, the majority of fecund women in Bangladesh (around three in five) reported having had no contact with a fieldworker during the preceding six months.<sup>6</sup>

Given these circumstances, it has become necessary for the national program to shift its emphasis to a static-site or clinic-based approach to the provision of services. In part, this has been made possible by overall social changes in Bangladesh in recent years, with considerable improvements in women's mobility and in couples' approval of family planning. Such changes are conducive to modifying the conventional domiciliary service distribution system.

The Government of Bangladesh and its principal donors all endorsed the Programme of Action presented at the International Conference on Population and Development in Cairo in 1994. This plan calls for family planning services to be offered within a framework that supports women's overall social and economic advancement and for a broader range of reproductive health services to be provided. This will require an increased emphasis on fixed-site facilities and clinics, because inherent to the home-based system is a focus essentially on distributing pills and condoms. In addition, the weak links between the fieldworkers and the clinics are considered to have affected the uptake of clinical services.

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## Working Hypothesis

In light of the above, some have argued that a shift to a fixed-site service delivery system would improve the program's cost-effectiveness, by permitting the one-stop provision of a range of essential health and family planning services. Such an approach might also result in increased use of the private sector and social marketing outlets (pharmacies and shops) for contraceptive commodities.

On the other hand, concerns have been raised about possible negative consequences for family planning in Bangladesh if a change is made from domiciliary distribution to a more static site-based approach. The number of family planning users might fall substantially, because women have become dependent on domiciliary services and, as per the traditional norms of *purdah*, will not venture outside their homes to be resupplied with contraceptives. According to this scenario, the number of current users and new acceptors will decline and dropouts will increase.

An opposing view on the consequences of such a change holds that knowledge about family planning is now almost universal in Bangladesh, and that couples are committed to limiting their family size. Thus, women will seek out other sources of contraceptive supplies in the absence of domiciliary delivery, and will continue to practice family planning. Despite the trend of decreasing numbers of fieldworker contacts, half of all Bangladeshi couples are currently practicing family planning, and a vast majority of them (84%) want either to space their next birth or to limit childbearing altogether.<sup>7</sup> Given this situation, it should be less difficult to motivate women to go to outside sources to obtain contraceptive methods and other related reproductive health services.

This article investigates the following question: Does a shift from the domiciliary distribution of contraceptives to the provision of family planning services at fixed sites in communities or at static clinics have a detrimental effect upon family planning performance in Bangladesh? We examine this problem separately in urban and rural areas by analyzing, before and after the shift in service delivery approach, trends or changes in five indicators of program performance: the contraceptive prevalence rate; the proportion of all users of family planning who are new acceptors; the contraceptive dropout rate; the method mix; and the source mix.

Our hypothesis is that a shift from domiciliary distribution to fixed-site or

clinic-based service delivery will result in a decline in the contraceptive prevalence rate and in the proportion of new acceptors, and in an increase in the dropout rate among family planning users and in an adverse effect on the contraceptive method mix and on the source mix, such that traditional methods or less-reliable sources become more common.

## Methodology

### *Urban Areas*

We used the urban and rural longitudinal surveillance systems of the ICDDR,B's Operations Research Project as the source of data for our analyses. The Operations Research Project's Urban Panel Survey collects data to monitor and evaluate health and family planning interventions in a population of about 400,000 in Dhaka's Zone 3 (one of the 10 administrative zones of the Dhaka City Corporation), which is served predominantly by nongovernmental organization programs, as well as by some government primary clinics. Similar to residents of other urban areas of Bangladesh, urban dwellers in Zone 3 have access to numerous commercial providers and outlets offering modern and traditional health and family planning services.

The Urban Panel Survey used a multi-stage cluster sampling design in which Zone 3 first was divided into four geographic areas. These areas were then divided into clusters of different size (i.e., primary sampling units containing 40–50 households). Each primary sampling unit was characterized as predominantly slum or nonslum, depending on overall living conditions (including housing, water and sanitary conditions), and was assigned a measure of size depending on the number of households it contained. We then selected 15 slum and 25 nonslum clusters from each of the four areas, with the probability of selection proportional to size. This resulted in a sample of around 6,000 households from the four areas, selected from a total of around 60,000 households.

To analyze the consequences of the shift from domiciliary distribution of family planning services in urban areas, we examined Urban Panel Survey data on family planning performance indicators collected quarterly between January–March 1996 and October–December 1998. (The shift in service delivery strategies began in July 1997 in urban areas. Hence, there are a total of 12 observation points of data, six before the shift and six after the shift.) We conducted a simple time-series analysis in which changes in the indicators were

assessed before and after the shift. There were 5,000 currently married women of reproductive age within the Urban Panel Survey at the time of the initial observation in 1996.

Following the shift from domiciliary distribution of family planning services in mid-1997, the urban programs operated by nongovernmental organizations began using fixed-site clinics to provide a package of essential health and family planning services—temporary and long-acting contraception; counseling on family planning methods and management of side effects; antenatal and postnatal care; child immunization and tetanus toxoid vaccine for women; and treatment of reproductive tract infections and sexually transmitted diseases, acute respiratory infections, diarrhea and other common ailments. A few government fieldworkers working in some urban pockets continued to distribute family planning services at the homes of their clients for some time, however, although this was fully discontinued in early 1998.

### *Rural Areas*

To analyze the consequences of the shift from domiciliary distribution in rural areas, we used data on family planning performance indicators collected by the Operations Research Project's rural surveillance system, the Sample Registration System. These data were utilized to evaluate the impact of the operations research interventions of the Operations Research Project that were field-tested within the government service delivery systems at Abhoynagar and Mirsarai thanas (sub-districts consisting of approximately 300,000 population each), in Jessore and Chittagong Districts, respectively. Jessore district, in southwestern Bangladesh, is a high-performing area in terms of family planning use, with a less-conservative overall social environment. In contrast, Chittagong district, situated in southeastern Bangladesh, is a low-performing area, with a relatively higher degree of conservatism.\*

Unlike the situation in the urban setting, health and family planning services in the rural areas of the country are provided predominantly by government providers and outlets, although nongovernmental programs in a number of rural areas work to complement and supplement the government programs. In addition, the

\*Areas with a contraceptive prevalence rate of 50% or more were classified as high-performing, and those with a lower rate were classified as low-performing.

**Table 1. Selected measures of family planning use in an urban area of Dhaka city (Zone 3), by year and quarter, before and after change in service delivery policy, 1996–1998**

Measure	Before change				After change							
	1996				1997		1997		1998			
	1	2	3	4	1	2	3	4	1	2	3	4
<b>Contraceptive prevalence rate</b>												
Among all currently married women of repro. age	54	54	54	56	55	56	55	55	56	55	57	56
Among base sample†	54	56	56	58	59	59	60	60	61	60	62	62
Among newly enrolled‡	na	21	24	25	28	30	29	30	31	33	32	32
<b>Method mix</b>												
Pill	23	23	23	22	24	24	22	23	24	24	24	24
Condom	10	9	9	11	10	11	11	10	11	10	11	11
Injectable	4	5	5	5	5	5	5	5	5	5	6	6
IUD/implant	3	3	3	3	3	3	3	3	3	3	3	3
Sterilization	7	7	7	7	6	6	6	6	5	6	6	6
Traditional method	7	7	7	8	7	7	8	8	8	7	7	6
<b>No. of currently married women of reproductive age</b>												
Total	5,000	5,070	5,100	5,005	5,198	5,080	5,250	5,343	5,305	5,357	5,361	5,445
Base sample†	5,000	4,855	4,710	4,622	4,563	4,501	4,489	4,462	4,430	4,392	4,374	4,349
Newly enrolled‡	na	215	390	383	635	579	761	881	875	965	987	1,096
<b>No. of current contraceptive users</b>												
Total	2,695	2,721	2,754	2,783	2,883	2,838	2,910	2,951	2,964	2,942	3,031	3,048
Continuing	2,383	2,336	2,350	2,398	2,451	2,483	2,519	2,501	2,509	2,515	2,559	2,597
New	312	385	404	385	432	355	391	450	455	427	472	451
<b>New acceptance rate§</b>												
Total	12	14	15	14	15	13	13	15	15	15	16	15
<b>Drop-outs</b>												
Total number	195	197	184	165	193	212	227	197	199	191	148	152
Rate††	8	8	7	6	7	8	8	7	7	7	5	6
<b>% distribution of users, by source of method</b>												
Clinic	35	37	38	35	36	36	33	34	35	36	38	39
Doorstep	22	21	17	17	17	16	9	6	2	2	0	0
Pharmacy/shop	30	30	31	32	33	35	42	43	45	47	48	50
Other‡‡	13	12	14	16	14	13	16	17	18	15	14	11

†The base sample consists of women who remained in the sample between the first quarter and the subsequent quarter. ‡Newly enrolled women are those who were not in the base sample in the first quarter, but who joined the study group in a subsequent quarter. §The new acceptance rate is the number of women who initiated contraceptive use in a particular quarter divided by the total number of contraceptive users in that quarter. ††The contraceptive dropout rate is calculated by taking the number of contraceptive users in the previous quarter for whom there is information in a given quarter, subtracting the number of users from the preceding quarter who are continuing users and then dividing the result by the number of users in the previous quarter included in the given quarter. †††Other includes traditional methods and supplies obtained from neighbors.

rural areas feature a considerable presence of traditional providers and a much smaller number of modern commercial providers and facilities.

For each rural thana within the Sample Registration System, a two-stage sampling design was used. In the first stage, four unions (administrative units of approximately 30,000 population each) were randomly selected from Abhoynagar thana and five unions were selected from Mirsarai thana. In the second stage, a complete household listing of each union was conducted, and sample households were selected by means of a systematic random approach (every sixth household at Abhoynagar and every fourth at Mirsarai).

Paira union (with a contraceptive prevalence rate of more than 50%) and Durgapur union (with a prevalence rate of 40%) were selected from Abhoynagar and Mirsarai thanas, respectively, to field-test, in both high- and low-performing rural

settings, an operations research intervention that provided family planning services from fixed sites. These service sites, named cluster spots, operated on a monthly basis at fixed households in the community, to serve a cluster of 40–50 surrounding households. The shift in service delivery from households to cluster spots was initiated in January 1995 in Paira and September 1995 in Durgapur. Instead of visiting currently married women of reproductive age at their homes, the trained, full-time government fieldworkers began to offer the following services from the cluster spots: distribution of pills and condoms and provision of injectable contraceptives; and motivation and counseling on family planning, immunization, and antenatal and postnatal care.

Since the domiciliary distribution strategy had led women to become accustomed to receiving services at home, during the initial period of the operations

research intervention the fieldworkers continued the domiciliary approach to supplying pills and condoms for clients who did not come to the cluster spots. However, a complete changeover to the cluster approach went into effect in May 1996 in Paira and in January 1997 in Durgapur.

The total sample of currently married women of reproductive age in Paira and Durgapur unions prior to the intervention was 485 and 677, respectively. The Sample Registration System collected data on family planning performance indicators from these samples, generally on a bi-monthly basis, from September 1994 through December 1998 for Paira and from May 1995 through December 1998 for Durgapur. Accordingly, we conducted a before-and-after intervention comparison (with a time-series analysis of the indicators during field-testing of the intervention) to assess the effects of the operations research.

## Results

### Urban Area

There was little or no change in the quarterly variations in contraceptive prevalence in the urban study area before and after the shift from domiciliary distribution of services (Table 1). The overall contraceptive prevalence rate (i.e., prevalence among all currently married women of reproductive age under study) before the shift varied between 54% and 56%; after the shift, this proportion ranged between 55% and 57%.

As mentioned earlier, the relevant information was collected through interviews with currently married women of reproductive age residing in households within the sample clusters in the Urban Panel Survey. However, the numbers of currently married women of reproductive age in the sample clusters changed over time, due to the combined effects of out-migration and in-migration, split-up of households, and compositional changes resulting from marriage, divorce, separation, mortality and women's crossing out of or entering into the reproductive ages. Therefore, to determine the actual trends in the use of contraceptive methods there, it was important to ascertain variations in contraceptive use separately among newly enrolled currently married women of reproductive age and among those who had remained in the base sample.

For all periods under study, the contraceptive prevalence rate in the base sample was much higher than that among the newly enrolled women (Table 1). This suggests that the relatively small increase in the overall prevalence rate after the changeover did not result from differentially high enrollment into the study sample of women who already were contraceptive users.

The shift from domiciliary distribution produced no discernable variation in the method mix among contraceptive users. The proportion of all currently married women of reproductive age who relied on the pill ranged between 22% and 24% both before and after the shift, and the relative share of condom users varied between 9% and 11% before the shift and remained within the 10–11% range after the shift. The proportion of women using injectable contraceptives increased by one percentage point, from 5% to 6%, while use of the IUD or the implant remained unchanged, at 3%.

There was a minor decrease in the relative share of women relying on sterilization, from 6–7% before the shift to 6% after it. In terms of the absolute numbers

of cases, however, use of sterilization increased. This can be explained by the increase in the denominator—i.e., the number of currently married women of reproductive age in the sample rose over time. Although the proportion of women relying on traditional family planning methods appears to have remained the same—generally within the range of 7–8% both before and after the changeover—it dropped to 6% in the last quarter observed in 1998.

The proportion of new acceptors\* of family planning was 12–15% of all contraceptive users before the shift and 13–16% after the shift. The contraceptive dropout rate<sup>†</sup> varied between 6–8% before and 5–8% after the shift. Table 1 also shows a considerable increase in the number of newly recruited contraceptive users, as the net result of a slightly higher level of new acceptance than of dropout, especially during the latest observations after the shift in approach to service provision.

The apparent lack of a sizable change in the prevalence rate, in the modern contraceptive mix, in the proportion of new acceptors and in the dropout rate following the changeover can be explained by shifts that occurred in current users' sources of contraceptive supplies. The proportion of contraceptive users obtaining their supplies at home from fieldworkers fell from 22% in January–March 1996 to 0% in October–December 1998, with the major portion of the decline occurring as expected after the change in service delivery in July 1997.

Concurrently, the proportion who obtained their supplies from pharmacies or shops rose from 30% to 50%, with the largest increase occurring after withdrawal of door-to-door distribution. The use of clinics as a source of contraceptive methods also rose slightly, from 35–38% before the changeover to 33–39% afterward. Hence, family planning users, especially users of the pill and the condom, who were previously supplied at their homes by fieldworkers appear to have switched partly to clinics and mostly to commercial sources (pharmacies and shops) for their contraceptive supplies.

These findings are similar for women living in slums and those living in non-slum areas of Dhaka (not shown). Women from each of these areas exhibited the same general pattern on the family planning indicators and in the switch to commercial sources of family planning supplies.

To further understand the impact of the shift at the household level, we supplemented the above aggregate findings with

**Table 2. Percentage distribution of all urban women and of urban women who obtained family planning services from clinics and pharmacies or shops, by socioeconomic characteristics, Oct.–Dec. 1998**

Characteristic	Total (N=5,445)	Obtained from clinic/pharmacy/shop (N=2,714)
<b>Education (in years)</b>		
0	45	44
1–5	27	35**
≥6	28	21
<b>Residence</b>		
Slum	38	40
Nonslum	62	60
Total	100	100

\*\*Difference is statistically significant at  $p < .01$ .

information on the socioeconomic characteristics of the women who obtained family planning services from the alternative service delivery sources. Accordingly, for the urban site, we analyzed information on the education and the area of residence (slum vs. nonslum) of women who received services from clinics and pharmacies or shops during the last observation period (October–December 1998).

Forty-five percent of currently married women of reproductive age in the sample had no formal education, and 38% of them resided in slums (Table 2). Of all fecund urban women who received family planning services from clinics, pharmacies or shops, 44% had no education and 40% lived in slum households. Although no discernable relationship between the various socioeconomic indicators and the use of the alternative sources was evident, urban women who have had some education (grades 1–5) were more likely to obtain family planning services from clinics or from pharmacies or shops. Overall, there appeared to have been no notable adverse impact on poor households of the shift in delivery approaches.

### Rural Area

The consequences of the shift from domiciliary distribution of services to the cluster spot-based service delivery approach

\*The proportion of new acceptors of family planning is determined by dividing the number of women who initiated contraceptive use in a particular round of data collection by the total number of contraceptive users in that round.

†The contraceptive dropout rate is calculated by taking the number of contraceptive users in the previous round for whom there is information in a given round, subtracting the number of contraceptive users from the preceding round who are continuing use, and then dividing the result by the number of users in the previous round included in the given round.

**Table 3. Selected measures of family planning use in a rural area of Bangladesh (Paira), by year and months, before and after change in service delivery policy, 1994–1998**

Measure	Before change	After change											
	1994	1995			1996			1997			1998		
	Sept.–Dec.	Jan.–Apr.	May–Aug.	Sept.–Dec.	Jan.–Apr.	May–Aug.	Sept.–Dec.	Jan.–Apr.	May–Aug.	Sept.–Dec.	Jan.–Apr.	May–Aug.	Sept.–Dec.
<b>Contraceptive prevalence rate</b>													
Among all currently married women of repro. age	52	56	58	57	57	55	55	58	57	58	57	57	57
Among base sample†	52	56	59	57	57	56	58	63	60	61	60	60	61
Among newly enrolled‡	na	11	17	25	21	25	21	24	26	29	32	33	35
<b>Method mix</b>													
Pill	18	19	20	19	19	19	19	21	22	22	22	22	22
Condom	2	2	2	2	2	2	2	3	2	2	2	2	2
Injectable	10	13	13	14	15	14	14	15	15	15	15	16	16
IUD/implant	4	4	5	5	4	4	4	5	4	4	4	4	4
Sterilization	11	12	12	11	11	11	11	11	11	12	11	11	11
Traditional method	7	6	6	6	6	5	5	3	3	3	3	2	2
<b>No. of currently married women of reproductive age</b>													
Total	485	488	474	469	472	476	487	493	498	503	502	512	515
Base sample†	485	479	468	461	458	460	453	455	448	445	447	445	446
Newly enrolled‡	na	9	6	8	14	16	34	38	50	58	55	67	69
<b>No. of current contraceptive users</b>													
Total	253	271	277	266	269	263	270	285	284	290	288	291	295
Continuing	235	236	245	240	246	242	245	251	262	266	266	267	269
New	18	35	32	26	23	21	25	34	22	24	22	24	26
<b>New acceptance rates§</b>													
Total	7	13	12	10	9	8	9	12	8	8	8	8	9
<b>Drop-outs</b>													
Total number	14	14	20	13	15	17	15	13	13	12	9	10	9
Rate††	6	6	8	5	6	7	6	5	5	4	3	4	3
<b>% distribution of users, by source of method</b>													
Clinic	32	33	33	34	34	35	35	35	35	35	35	35	35
Doorstep	43	27	19	19	12	0	0	0	0	0	0	0	0
Pharmacy/shop	10	13	13	11	12	14	15	15	15	14	14	15	15
Cluster spot	na	13	22	24	30	35	35	36	39	42	43	44	44
Other‡‡	15	14	13	12	12	16	15	14	11	9	8	6	6

†The base sample consists of women who remained in the sample between the first study period and the subsequent period. ‡Newly enrolled women are those who were not in the base sample in the first study period, but who joined the study group in a subsequent period. §The new acceptance rate is the number of women who initiated contraceptive use in a particular period divided by the total number of contraceptive users in that period. ††The contraceptive dropout rate is calculated by taking the number of contraceptive users in the previous period for whom there is information in a given period, subtracting the number of contraceptive users from the preceding period who are continuing use and then dividing the result by the number of users in the previous period included in the given period. ‡‡Other includes traditional methods and supplies obtained from neighbors. Note: na=not applicable.

in the rural areas may be seen from Table 3 (for Paira) and Table 4 (for Durgapur). Data for the analyses were collected from interviewing currently married women of reproductive age residing in the sample households. Similar to the urban study site, changes in the number of these women over time occurred mainly due to the combined effects of split-up of households and changes in the composition of the sample women because of marriage, divorce, separation, mortality and crossing out of or entering into the reproductive age bracket. (Although we noted some influence of out- and in-migration, unlike the urban study site, these were not an important factor in the rural study areas.)

The overall contraceptive prevalence rate in both areas was consistently higher

throughout the period following the shift in service delivery. In Paira, prevalence increased from 52% to 57% (Table 3), while in Durgapur it rose from 40% to 45–46% (Table 4). In both of these sites, prevalence was notably higher in the base sample than among newly enrolled women, implying that the increase in the overall prevalence did not result from differentially high enrollment of contraceptive users in the subsequent study samples.

The proportions of currently married women of reproductive age who were using temporary modern methods increased considerably in both the Paira and the Durgapur study sites after the shift in service delivery. In the high-performing Paira union, the relative share of pill users rose from 18% to 22%, that of condom users remained unchanged (at 2%) and the

proportion of injectable users increased from 10% to 15–16% (Table 3). No such uptake was evident in use of longer-acting and permanent methods, however. In the low-performing Durgapur union, the proportions of women using all modern methods displayed an increase; the most sizable of these was in the use of injectable contraceptives, from 3% in 1995 to 8–9% in 1998 (Table 4).

The relative shares of injectable contraceptives in both rural study sites were notably higher than the corresponding national average of 6% for the rural areas. The remarkable increase in the use of injectable contraceptives has taken place because of the easy availability of this method from trained providers at the cluster spots, which were located within close proximity to women's residences. Also,

the injectable was generally considered by the women to be a convenient clinical method that is less provider-reliant, involves less-frequent travel outside of the home for resupply, and gives protection for 2–3 months without requiring any additional action on the part of the user. In fact, the successive Demographic and Health Surveys also demonstrated that use of injectable contraceptives is rising rapidly in Bangladesh.<sup>8</sup>

The changeover also appeared to have resulted in a significant decrease in the proportion of traditional method users in both the rural sites: from 7% to 2–3% in Paira and from 10% to 3% in Durgapur. The postshift levels at both of these sites were significantly lower than the corresponding national average of 7% for rural areas. In addition to the positive effects of the cluster spot-based strategy, the remarkable increase in the use of injectable contraceptives and decrease in reliance on traditional methods may be due in part to the overall activities of the Operations Research Project (formerly known as MCH-FP Extension Project) carried out in these rural study sites.

The new acceptance rate of family planning in Paira sharply increased immediately after the shift. However, this ultimately stabilized at 8–9%. In Durgapur, the new acceptance rate also increased substantially, from 4% to 10%. The dropout rate in Paira either remained static or increased slightly during the first two years following the shift, and then decreased, ending at 3–4%. Similarly, the dropout rate in Durgapur rose slightly immediately following the shift in service delivery approach but was ultimately reduced by half, from 5% before the change to 2–3%.

As was true for the urban area, the absence of a decline in family planning program indicators following the shift in service delivery can generally be explained by changes in rural family planning users' sources of contraceptive supplies. The proportion of users obtaining their supplies from cluster spots increased after the shift in service delivery to a level of around 43–44% in Paira and 32–33% in Durgapur for the last year of the analysis. The proportion obtaining contraceptive supplies from clinics showed a slight change in Paira (from 32% to 35%), while it increased considerably (from 38% to 44–46%) in Durgapur.

The proportions obtaining supplies from private sources such as pharmacies and shops also rose sizably in both study areas: from 10% to 14–15% in Paira, and

**Table 4. Selected measures of family planning use in a rural area of Bangladesh (Durgapur), by year and months, before and after change in service delivery policy, 1995–1998**

Measure	Before change	After change											
	1995	1995			1996			1997			1998		
	May-Aug.	Sept.-Dec.	Jan.-Apr.	May-Aug.	Sept.-Dec.	Jan.-Apr.	May-Aug.	Sept.-Dec.	Jan.-Apr.	May-Aug.	Sept.-Dec.		
<b>Contraceptive prevalence rate</b>													
Among all currently married women of repro. age	40	41	42	45	44	46	45	45	45	45	45	46	
Among base sample†	40	42	43	45	44	48	46	46	46	47	47	47	
Among newly enrolled‡	na	13	27	36	25	27	29	31	33	34	36	36	
<b>Method mix</b>													
Pill	16	18	19	20	20	20	19	19	20	20	20	20	
Condom	2	2	3	3	3	3	3	3	3	3	3	3	
Injectable	3	4	4	5	5	6	7	8	8	8	9	9	
IUD/implant	2	3	3	3	3	3	4	4	3	3	3	3	
Sterilization	7	8	8	8	8	8	8	8	8	8	8	8	
Traditional method	10	6	5	6	5	6	4	3	3	3	3	3	
<b>No. of currently married women of reproductive age</b>													
Total	677	699	657	680	687	720	721	722	721	723	718	718	
Base sample†	677	675	646	669	667	665	662	664	660	661	660	660	
Newly enrolled‡	na	24	11	11	20	55	59	58	61	62	58	58	
<b>No. of current contraceptive users</b>													
Total	271	286	279	303	301	331	324	322	327	328	329	329	
Continuing	259	257	252	266	258	286	289	285	293	295	297	297	
New	12	29	27	37	43	45	35	37	34	33	32	32	
<b>New acceptance rate§</b>													
Total	4	10	10	12	14	14	11	12	10	10	10	10	
<b>Drop-outs</b>													
Total number	13	13	16	16	18	15	11	10	7	8	7	7	
Rate††	5	5	6	6	7	5	4	3	2	3	2	2	
<b>% distribution of users, by source of method</b>													
Clinic	38	39	36	37	38	41	43	44	44	45	46	46	
Doorstep	36	17	17	14	12	0	0	0	0	0	0	0	
Pharmacy/shop	9	10	11	11	12	12	12	13	13	13	13	13	
Cluster spot	na	20	22	26	26	30	30	31	32	32	33	33	
Other‡‡	17	14	14	12	12	17	15	12	11	10	8	8	

†The base sample consists of women who remained in the sample between the first study period and the subsequent period. ‡Newly enrolled women are those who were not in the base sample in the first study period, but who joined the study group in a subsequent period. §The new acceptance rate is the number of women who initiated contraceptive use in a particular period divided by the total number of contraceptive users in that period. ††The contraceptive dropout rate is calculated by taking the number of contraceptive users in the previous period for whom there is information in a given period, subtracting the number of contraceptive users from the preceding period who are continuing use and then dividing the result by the number of users in the previous period included in the given period. †††Other includes traditional methods and supplies obtained from neighbors. Note: na=not applicable.

from 9% to 13% in Durgapur. The increase in reliance on these sources was not as great as was seen in the urban study site, however. In short, then, the shift in sources in urban areas was predominantly from domiciliary delivery to pharmacies and shops, while in rural areas it was from domiciliary delivery to cluster spots.

To examine the impact of the shift at the level of rural households, we supplemented the aggregate findings presented earlier with information on the socioeconomic characteristics of the currently married women of reproductive age who obtained family planning services from the cluster spots. Accordingly, for the rural study sites, we examined information on

education and household landholding for women who received services from the cluster spots during the September–December 1998 observation period (Table 5, page 88).

In Paira, 46% of the sample women had no formal education and 48% represented poor households (those holding no more than 50 decimals—one-half acre—of arable land). Among all women who obtained family planning methods from the cluster spots, 49% had no formal education and 40% came from poor households. Education demonstrates no statistically significant relationship with use of the cluster spots. However, women who obtained supplies from cluster spots were

**Table 5. Percentage distribution of all rural women and of rural women who obtained family planning services from cluster spots, by socioeconomic characteristics, according to area of residence, Oct.–Dec. 1998**

Characteristic	Paira		Durgapur	
	Total (N=515)	Obtained from cluster spots (N=131)	Total (N=718)	Obtained from cluster spots (N=110)
<b>Education (in years)</b>				
0	46	49	49	42
1–5	36	34	31	42*
≥6	18	17	20	16
<b>Amount of landholding</b>				
≤50 decimals†	48	40	45	46
51–300 decimals	37	51**	26	45**
>300 decimals	15	9	29	9
Total	100	100	100	100

\*Difference is statistically significant at  $p < .05$ . \*\*Difference is statistically significant at  $p < .01$ . †One hundred decimals are equivalent to one acre. (One decimal is 432 square feet.)

more likely to be from moderately rich households (those holding 51–300 decimals of land) than were sample women in general (51% vs. 37%).

In Durgapur, 49% of the sample women did not have any formal education and 45% represented poor households. Among the women receiving family planning services from the cluster spots, 42% were illiterate and 46% were poor. Women who used cluster spots for contraceptive supplies were more likely to have some education (grades 1–5) and to be from moderately rich households than were all women in the sample. Altogether, some differential impact of the shift on poor rural households was evident, with women coming from moderately rich households and having some education being more likely to have obtained family planning methods from the cluster spots than might have been expected, based on their representation in the general population.

## Conclusions

Our working hypothesis was not supported by the results of this analysis: Concerns regarding the potential detrimental effects of a change in service delivery approach on family planning program performance appear to be unfounded. In the wake of the shift from domiciliary delivery to site-based service provision, the contraceptive prevalence rate and the proportion of new acceptors did not decline, the dropout rate did not increase and the contraceptive method mix showed no major shift to more traditional methods of family planning.

The response of the majority of women to the withdrawal of supplies delivered to their homes was to obtain their supplies from services outside of their homes. The utilization of alternative sources of family planning supplies suggests that an important constraint to maintaining and increasing women's level of participation in the family planning program has been reduced. In general, women in both urban and rural areas with different levels of socioeconomic status do not appear to have become dependent upon domiciliary services. Moreover, contrary to the norms of purdah, they ventured outside their homes to obtain contraceptives.

According to the government's new strategies for the rural areas of Bangladesh, a package of essential health and family planning services (the essential services package) is to be delivered on a daily basis by frontline health and family planning workers from community clinics, each to be built to serve an average of 6,000 people. Similarly, rural nongovernmental organizations are shifting away from the conventional domiciliary distribution to static and satellite clinic-based delivery of the essential services package. Urban areas, which are served predominantly by nongovernmental organizations, also have initiated clinic-based provision of the essential services package.

Our findings indicate that governmental and nongovernmental policies to provide family planning services at static sites or at clinics represent a viable strategy in Bangladesh, and are likely to continue to maintain and increase the level of performance of the family planning program. It is of critical importance, however, to pursue an effective promotional system to enhance the use of these static sites and clinics, especially by socioeconomically disadvantaged subpopulations, and increase the use of clinical methods of family planning provided from these sources. Also, utilization levels of other health services delivered from static sites and clinics will need to be examined carefully.

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- Mitra SN et al., 1994, op. cit. (see reference 6); and Mitra SN et al., 1997, op. cit. (see reference 6).

## Resumen

**Contexto:** Las preocupaciones sobre la sostenibilidad financiera y la necesidad de ofrecer a sus clientes una gama más amplia de servicios de salud reproductiva ha llevado al programa de planificación familiar de Bangladesh a cambiar el método convencional de distribución puerta a puerta (domiciliaria), a un método de distribución con base en un puesto fijo de distribución. Sin embargo, reviste fundamental importancia examinar cuidadosamente las consecuencias que puede tener este cambio con respecto al rendimiento de los servicios de planificación familiar.

**Métodos:** Mediante el uso de datos de los sistemas de observación longitudinal del Operations Research Project del International Centre for Diarrhoeal Research, Bangladesh (ICDDR,B) se realizaron análisis—antes y después—de la prevalencia del uso de anticonceptivos, de los tipos de métodos usados, de las fuentes de obtención de métodos, y de las tasas de aceptación y de abandono del uso con el objeto de evaluar las consecuencias del cambio de enfoque del servicio de distribución de anticonceptivos.

**Resultados:** El cambio de un sistema de distribución domiciliaria a un sistema con base en una clínica parece haber resultado en un pequeño incremento de la prevalencia de uso en el área urbana analizada—desde una prevalencia de uso del 54–56% al 55–57%. Este cambio de sistema no produjo una variación discernible con respecto a los métodos específicos seleccionados, el porcentaje de nuevos aceptantes de los servicios de planificación familiar o la tasa de abandono de uso de anticonceptivos. Esta situación que aparentemente no ha cambiado, se puede explicar mediante el aumento que hubo en la utilización de fuentes alternativas de anticonceptivos, tales como farmacias y tiendas (30–35% antes y 42–50% después). En dos zonas rurales examinadas, el cambio de distribución domiciliaria a un servicio con base en lugares fijos, resultó en un aumento de la tasa

de prevalencia del 52% al 57% en Paira y del 40% al 45–46% en Durgapur. Este cambio coincidió con un mayor uso de anticonceptivos inyectables y una disminución del uso de métodos tradicionales, entre las usuarias de anticonceptivos de estas zonas rurales. También fue evidente un aumento inmediato en el número de nuevas usuarias, así como una disminución a largo plazo de las personas que abandonaron la anticoncepción. Luego del cambio de sistema de distribución, en Paira, el 43–44% de las usuarias obtuvieron sus métodos anticonceptivos en los puestos de distribución; este porcentaje fue del 32–33% en Durgapur.

**Conclusiones:** El cambio reciente del programa de planificación familiar hacia un sistema de distribución desde las clínicas de un paquete integrado de servicios esenciales de salud y de métodos anticonceptivos, probablemente mantendrá o quizás incluso incrementará los niveles de prevalencia del uso de anticonceptivos en Bangladesh.

## Résumé

**Contexte:** Les problèmes de durabilité financière et la nécessité d'offrir aux clientes un plus large éventail de services d'hygiène de la reproduction ont donné lieu à un glissement du programme de planning familial du Bangladesh, de la distribution traditionnelle de porte à porte (service à domicile) à un système de prestations sur site fixe. Il est cependant essentiel de procéder à l'examen des conséquences de ce glissement sur l'efficacité du programme.

**Méthodes:** Sur la base des données obtenues des systèmes de surveillance longitudinale du projet Operations Research Project—International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), une analyse «avant-après» de la prévalence contra-

ceptive, du choix de méthodes et de celui des sources, du taux de nouvelles acceptations et du taux d'abandon a été menée afin d'évaluer les conséquences du changement survenu au niveau de l'apport des prestations.

**Résultats:** Le passage de la distribution à domicile aux prestations cliniques semble avoir donné lieu à une légère augmentation de la prévalence contraceptive dans la zone urbaine observée, de 54–56% avant le changement à 55–57% après. Aucune variation discernable n'a été observée au niveau du choix de méthodes, de la proportion de nouvelles utilisatrices ou du taux d'abandon de la contraception. Cette absence apparente de changement s'explique par le recours accru aux autres sources, dont les pharmacies et autres points d'approvisionnement (30–35% avant, et 42–50% après). Dans deux zones rurales à l'étude, le passage de la distribution à domicile aux prestations offertes sur sites fixes, dits «points de grappe», s'est traduit par une augmentation du taux de prévalence, de 52% à 57% à Paira, et de 40% à 45–46% à Durgapur. La transition a coïncidé avec un recours accru aux injectables et un déclin des méthodes traditionnelles parmi les utilisatrices rurales. Une hausse notable de nouvelles utilisatrices est aussi apparue, de même qu'une baisse évidente des abandons. Après la transition, 44% des utilisatrices courantes de Paira s'adressaient aux points de grappe pour leur approvisionnement en contraceptifs, de même que 33% à Durgapur.

**Conclusions:** La récente transition du programme de planning familial vers un système de prestation clinique intégrée de services sanitaires fondamentaux et de planning familial semble susceptible de maintenir, et peut-être même d'accroître, les niveaux de prévalence contraceptive au Bangladesh.

## Correction

In the article “Length of counseling sessions and the amount of relevant information exchanged: a study in Peruvian clinics,” by Federico R. León et al. [2001, 27(1):28–33 & 46], two erroneous statements appeared regarding official Peruvian family planning policy. On page 30, the article incorrectly states that Peruvian Ministry of Health guidelines require all new users of hormonal methods to receive a pelvic examination. In fact, the Peruvian Ministry of Health no longer requires pelvic exams for new users of hormonal contraceptives (according to National Reproductive Health Care Guidelines issued in January 1997). Pelvic examinations are recommended only as an optional preventive measure (Norms of the National Family Planning Program, issued September 1999). In addition, on page 33, the article incorrectly states that “the National Family Planning Program demands that all providers...provide contraceptive protection to a specified number of couples each month.” The Peruvian Ministry of Health prohibits applying any kind of mandatory quotas or performance targets to its service providers for recruiting family planning adopters or for promoting specific family planning methods. While formal Ministry regulations have never permitted individual numerical performance targets for providers, the prohibition was made more explicit and detailed in the new mandatory Norms of the National Family Planning Program (issued in September 1999).