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BANGLADESH: FAMILY PLANNING MARKET SEGMENTATION

UPDATE OF THE 2003 ANALYSIS

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Abstract
In recent years, both the public and private sectors have expanded their roles in the growing family planning market in Bangladesh. A market segmentation analysis was carried out to monitor whether this expansion has improved the efficiency of the national family planning program—that is, the public-sector clients who are wealthy and can afford to buy contraceptives would switch to the private sector and, consequently, free up resources for the public sector, which would better reach the poor and the underserved population. This would create an effective public–private partnership for serving the contraceptive needs of the country. Using data from four Bangladesh Demographic and Health Surveys conducted over the last 10 years, the analysis looked at the trend in the variation in contraceptive use and source by income, age, division, and place of residence. The analysis shows that public–private partnership in Bangladesh has been effective. However, there are still opportunities for both the public and private sectors to expand their services further to reach even more clients.

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CONTENTS

Tables

ACRONYMS

BDHS	Bangladesh Demographic and Health Survey
CPR	contraceptive prevalence rate
GDP	gross domestic product
GOB	Government of Bangladesh
DGFP	Directorate General, Family Planning
IEC	information, education, and communication
IUD	intrauterine device
JSI	John Snow, Inc.
NGO	nongovernmental organization
SMC	Social Marketing Company
USAID	U.S. Agency for International Development

EXECUTIVE SUMMARY

To reach the current objective of achieving replacement level fertility by 2010, the financial requirement for contraceptive commodities for the Bangladesh national family planning program[1] will increase from the current requirement of approximately U.S.$36.9 million to about U.S.$43.6 million in 2010 (Hudgins 2005). As a result, there will be an increasing demand for contraceptives and an increasing requirement for government and donor funds for contraceptive procurement. Given the scarce resources for family planning programs, the public sector will not be able to provide free contraceptives to all potential clients. To share the burden, the private sector has a vital role to provide contraceptives to those who are wealthy and can afford to pay for them and to those who are willing to pay for them.

To ensure contraceptive security[2] for the country, the Government of Bangladesh (GOB), currently the major (56 percent) contraceptive provider for the country, has taken initiatives to finance almost all the public-sector contraceptive requirements through World Bank loans. The private sector, which includes private providers/clinics, commercial pharmacies, the Social Marketing Company (SMC), and nongovernmental organizations (NGOs), has also responded to the growing demand for contraceptives by becoming a major partner of the public sector in the contraceptive market of Bangladesh. The private-sector share of the contraceptive market increased from 19 percent in 1994 to 43 percent in 2004 (Mitra et al. 1994; NIPORT, MA, and ORCM 2005).

The contraceptive market of Bangladesh is also segmented according to method type. The public sector is the major source for oral pills and long-term methods while the private sector, largely dominated by the SMC, supplies subsidized as well as unsubsidized contraceptives and is the major provider of condoms and the second major provider of oral pills.

As the public–private partnership grows to meet the increasing demand for contraceptives, market segmentation analysis is gaining in importance. It is essential to monitor whether the family planning market in Bangladesh is *well segmented*; that is, whether the contraceptive sources used by different socioeconomic groups are consistent with an efficient use of public and private resources. The contraceptive market segmentation analysis carried out in 2003 indicated that the contraceptive market in Bangladesh is well segmented. About two-thirds of women in the wealthiest quintile[3] obtain contraceptives that are unsubsidized or partially subsidized through private clinics or commercial pharmacies, while most (84 percent) of the poorest quintile obtain fully subsidized contraceptives from the public sector (Chawla et al. 2003).

The 2003 contraceptive market segmentation analysis was based on the 1999–2000 Bangladesh Demographic and Health Survey (BDHS) data. Since then, the 2004 BDHS data have been released, providing the opportunity to monitor the influence of the changing contraceptive market on the contraceptive security of the country. Since 2000, the major change in the contraceptive market has been the further growth of the private sector. The private-sector share of the contraceptive market in Bangladesh increased from 35 percent in 2000 to 43 percent in 2004 (NIPORT, MA, and ORCM 2001, 2005). The increasing role of the private sector in the contraceptive market of Bangladesh is desirable in order to supplement and complement the public sector in meeting the growing contraceptive needs of the country. Given the growth in the private sector, the expectation is that the public-sector clients who are rich and can afford to buy contraceptives will

[1] The term *Bangladesh national family planning program* is used to refer to both the public- and private- sector family planning initiatives in the country.

[2] Contraceptive security exists when every person is able to choose, obtain, and use quality contraceptives whenever s/he needs them (JSI/DELIVER and Futures Group 2003; Sharma and Dayaratna 2005).

[3] On the basis of household economic status, the market segmentation analysis categorized the women in reproductive age into five equal groups that are referred to as *quintiles*.

switch to the private sector, which will provide the public sector with more resources to better reach the poor, thereby creating an effective public-private partnership for serving the contraceptive needs of Bangladesh. Accordingly, the 2003 contraceptive market segmentation analysis is updated using the 2004 BDHS data.

This study conducted a secondary analysis of the 1993–1994, 1996–1997, 1999–2000, and 2004 BDHS data to examine the trend of the variation of the family planning program service utilization between the different contraceptive market segments—mainly, wealth status, age group, place of residence, parity, and division. The survey estimates were then applied to population estimates from United Nations world population projections to get the total number of contraceptive users by method and source.

The market segmentation analysis revealed the following strengths of the national family planning program that are conducive to achieving contraceptive security in Bangladesh:

- Disparity (i.e., the differentials) in the modern method contraceptive prevalence rate (CPR) between the rich and the poor is decreasing.
- Disparity in the modern method CPR between urban and rural area is decreasing.
- Although the shifting method mix from long-term and permanent method to short-term method observed in BDHS 1999–2000 is still continuing, there is some evidence that the trend will change soon.
- The effectiveness of the public–private partnership in the contraceptive market of Bangladesh is improving; public-sector clients who were in the richest quintile are gradually shifting to the private sector, while the public sector is continuing to expand its services to the poor.
- The effectiveness of the public sector of Bangladesh in serving the poor is comparable to the effectiveness of the public sector of other countries that have successful family planning programs.
- The private sector is increasingly playing a significant role in the contraceptive market of Bangladesh:
  - The private sector has emerged as a potential supplier for injectables.
  - The SMC has emerged as one of the major suppliers for the oral pill market in Bangladesh.
  - SMC is the major source for condoms among users from all the five wealth quintiles and other market segments.
  - The role of the private sector in serving the rapidly growing urban population has been impressive.
  - The private sector is increasingly reaching out to the younger family planning clients.
  - The rapidly expanding private sector is also serving the poor.
- Opposition to family planning as a cause for not using contraceptives is decreasing over time.
- Family planning service delivery of the national program improved over the last decade; this is shown by a decrease in problems reported with current method and an increase in the median duration of current method use.

Nevertheless, the analysis revealed major challenges to the national family planning program that need to be addressed to ensure the contraceptive security of the country. About 8.7 million potential future contraceptive users will be added to the pool of 13.6 million married women currently using contraceptives, creating a mammoth task for the national family planning program. In developing the strategy to serve the future contraceptive market in Bangladesh, the following issues should be considered:

- The national family planning program is unable to keep up with the contraceptive needs of the rapidly growing urban population; the modern method CPR in the urban area has remained stagnant over the past eight years.

- There is a huge disparity in the modern method CPR among the six divisions of Bangladesh—mainly due to access issues, among others; while the modern method CPR in Sylhet and Chittagong Divisions is unexpectedly low, it has remained stagnant in Khulna Division over the last eight years.
- Only 17 percent of the 6.1 million modern method users with three or more children (and most do not want any more children) have currently adopted long-term or permanent methods, leaving a huge number of potential clients for longer-term methods.
- Although the role of the private sector in the long-term contraceptive market in Bangladesh is improving, it is still negligible; the private sector has a huge opportunity to increase its role in providing longer-term contraceptives.
- Opposition to family planning is still a cause for contraceptive nonuse among the underserved segments of the country.
- Although family planning service delivery is improving, a disparity in family planning service delivery between the rich and the poor continues.

A strong public–private partnership will be the key to face the challenges of the national family planning program.

BACKGROUND

The estimated number of married women of reproductive age in Bangladesh is projected to increase from 27.7 million in 2005 to 30.9 million in 2010 (Ross, Stover, and Adelaja 2005). With the current objective of achieving replacement level fertility by 2010, a conservative estimate shows that the financial requirement for contraceptive supplies will increase from U.S.$36.9 million in 2006 to U.S.$43.6 million in 2010 (Hudgins 2005). As a result, there will be an increasing demand for contraceptives and increased pressure on available government and donor funds for contraceptive procurement, which will undermine the contraceptive security[4] of the country.

It is encouraging that the latest Bangladesh Demographic and Health Survey (BDHS), conducted in 2004, indicates that the increasing trend in the modern method CPR in Bangladesh observed over the last three decades continues. The modern method CPR among currently married women increased from 43 percent in 2000 to 47 percent in 2004 (see bottom line in figure 1). However, to achieve the objective of reaching the replacement level fertility by the year 2010, the CPR needs to reach 70 percent (Hudgins 2005), which would require a greater rate of increase in the CPR than currently observed (see top line in figure 1). The unmet need for contraception, which has been declining over the last decade, is still high (11 percent; figure 2), indicating that the CPR objective for the year 2010 will not be met. However, it is of concern that, since 2000, the total demand[5] for contraception in Bangladesh has remained stagnant at about 68 percent (figure 2).

Figure 1. Observed and Expected Trend in the Modern Method CPR, Bangladesh (1994–2010)

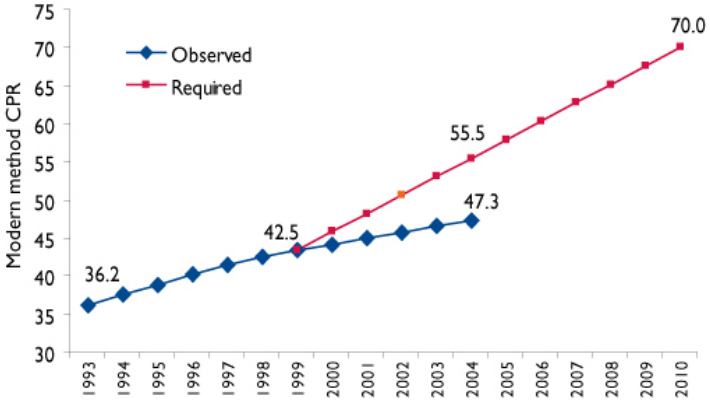
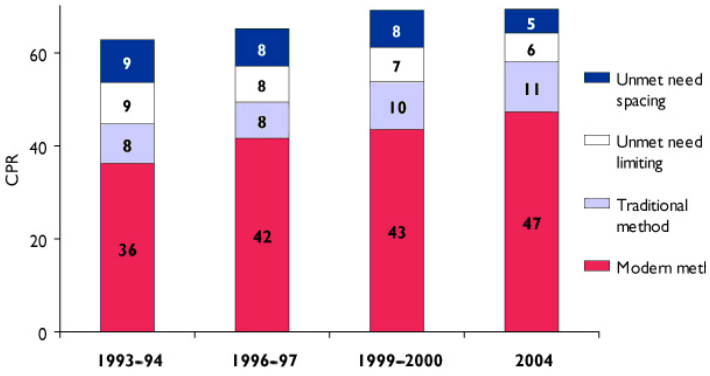


Figure 2. Trend in CPR and Unmet Need, Bangladesh (1994–2004)



A major challenge of the Bangladesh national family planning program[6] is to identify and reach out to the population with unmet need for family planning and to create further demand to reach its fertility goals. Given the scarce resources for family planning programs, the public and private sectors need to work together to share the burden of the challenge. To ensure contraceptive security, the Government of Bangladesh (GOB), currently the major (56 percent) contraceptive provider, has taken steps to finance almost

[4] Contraceptive security exists when every person is able to choose, obtain, and use quality contraceptives whenever s/he needs them (JSI/DELIVER and Futures Group 2003; Sharma and Dayaratna 2005).

[5] Total demand for contraception is the sum of the CPR and the unmet need.

[6] The term *Bangladesh national family planning program* is used to refer to both the public- and private- sector family planning initiatives in the country.

all the public-sector contraceptives through World Bank loans. The private sector, which includes private providers/clinics, commercial pharmacies, and NGOs, has also responded to the growing demand for contraceptives by becoming a major partner of the public sector in the contraceptive market in Bangladesh. The private-sector share of the contraceptive market increased from 19 percent in 1994 to 43 percent in 2004 (Mitra et al. 1994; NIPORT, MA, and ORCM 2005).

The contraceptive market of Bangladesh is also segmented according to method type. The public sector is the major source for oral pills and long-term methods while the private sector, largely dominated by the Social Marketing Company (SMC) and supplying subsidized as well as unsubsidized contraceptives, is the major provider of condoms and the second major provider of oral pills. The public sector provides supply for 56 percent of the pill users, 86 percent of intrauterine device (IUD) users, 79 percent of injectable users, 70 percent of the Norplant acceptors, and nearly 90 percent of the male and female sterilization clients. The private sector provides supplies for 75 percent of the condom users and 44 percent of the pill users.

As the public–private partnership is growing to meet the increasing demand for contraceptives, market segmentation analysis is gaining importance. There is a need to monitor whether the family planning market in Bangladesh is *well segmented*; that is, whether the contraceptive sources used by different socioeconomic groups are consistent with an efficient use of public and private resources. The contraceptive market segmentation analysis carried out in 2003 indicated that the contraceptive market in Bangladesh is well segmented. About two-thirds of women in the wealthiest quintile obtain contraceptives that are unsubsidized or partially subsidized, such as from private clinics or commercial pharmacies, while most (84 percent) of the poorest quintile obtain fully subsidized contraceptives from the public sector (Chawla et al. 2003).

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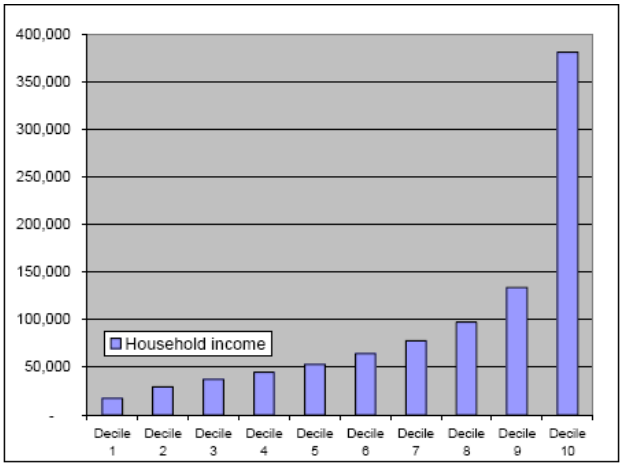
METHODOLOGY

This study conducts a secondary analysis of the 1993–1994, 1996–1997, 1999–2000, and 2004 BDHS data to examine the variation of the family planning program short-term outcomes between the different contraceptive market segments and its changes over time. The family planning outcomes that were analyzed included modern method CPR, unmet need, future intention to use contraceptives, method mix, source mix, problems with current method, median duration of contraceptive use, and reasons for not intending to use contraceptives in the future. The contraceptive market of Bangladesh is defined as the ever-married 10- to 49-year-old women (this group includes women who are currently married, divorced, or widowed). The contraceptive market is mainly segmented by the household economic status of women. The other market segments of interest include age group, administrative division, and place of residence. Except for the contraceptives source, the variation or the inequity of the family planning outcomes among the selected market segments are analyzed among currently married 10- to 49-year-old women. The source mix is analyzed among ever-married 10- to 49-year-old women. Simple cross-tabulations are conducted for the purpose. The analysis is adjusted for the survey design. Only statistically significant (i.e., $p > 0.05$) results are discussed.

The household economic status of women of reproductive age is determined by their household characteristics and assets. Accordingly, women of reproductive age are categorized into five equal groups or quintiles: richest, richer, middle, poorer, and poorest. The household economic classification of women of reproductive age is also referred to as *wealth quintiles* or *standard of living* (SLI) *quintiles*. Details of the methodology used to categorize the women into different wealth segments are given in the 2004 BDHS final report (NIPORT, MA, and ORCM 2005).

The Bangladesh contraceptive market segmentation analysis conducted in 2003 indicates that there is a huge income disparity between the richest 20 percent of the population compared to the rest of the population. The richest one-fifth of the households in Bangladesh accounts for 55 percent of the total gross domestic product (GDP), while the rest of the GDP (i.e., 45 percent) is distributed among the remaining 80 percent of the households (Chawla et al. 2003). Figure 3 shows the per capita income by income deciles. The classification of women of reproductive age into wealth quintiles assumes that the women in the poorest quintile represent the first two deciles in figure 3, the poorer quintile represents the third and fourth deciles, the middle quintile represents the fifth and sixth deciles, the richer quintile represents the seventh and eight deciles, and the richest quintile represents the ninth and tenth deciles. Household income gradually increases from approximately taka 20 thousand (U.S.$333) to about taka 75 thousand (U.S.$1,250) as women's household economic status or wealth moves from the poorest to the richer quintile. However, the income level increases several times from about taka 75 thousand (U.S.$1,250) to about taka 260 thousand (U.S.$4,333) as the wealth status changes from the richer to the richest quintile; again, highlighting the huge disparity between the richest 20 percent of the population compared to the rest.

Figure 3. Average Per Capita Household Income (in taka) by Income Deciles



Source: Chawla et al. 2003

The survey estimates are then applied to population estimates from United Nations world population projections[7] to get the total number of contraceptive users by method and source.

[7] United Nations world population projections are obtained from the DemProj/Spectrum software developed by the Futures Group and Research Triangle Institute (2005).

RESULTS

1. The public-sector clients, i.e., the poor, are less likely to be educated, mainly reside in rural areas, and are comparatively younger.

The family planning market in Bangladesh is mainly segmented by household economic status, i.e., the wealth status of married women, to identify and differentiate the target clients for the public and private-sector programs. The public-sector clients are primarily the poor, who do not have the ability to buy contraceptives, although they may be willing to do so.

As expected, the public-sector clients are relatively less educated (see table 1). Married women from the poorer households are less likely to be educated. It is not surprising to note that the level of higher education increases more than threefold, from 5 percent to 18 percent, as women's household wealth status changes from the richer to the richest quintile; this corresponds with the differences in the average household income by quintile, which was noted earlier.

Table 1 further indicates that the married women from poorer households tend to be younger and more likely to be residing in rural areas. Not surprising, the pattern of relationship between wealth and urban residence is similar to the pattern of the relationship between wealth and education, or wealth and average household income observed earlier. The percentage residing in urban areas increases gradually from 10 percent to 18 percent as women's wealth status changes from the poorest to the richer quintile; however, the percentage of urban residents increases more than threefold, from 18 percent to 58 percent as wealth status changes from the richer to the richest quintile.

Table 1. Sample Characteristics: Percentage Distribution of the Currently Married Women by Selected Characteristics According to Wealth Quintile, Bangladesh (2004)

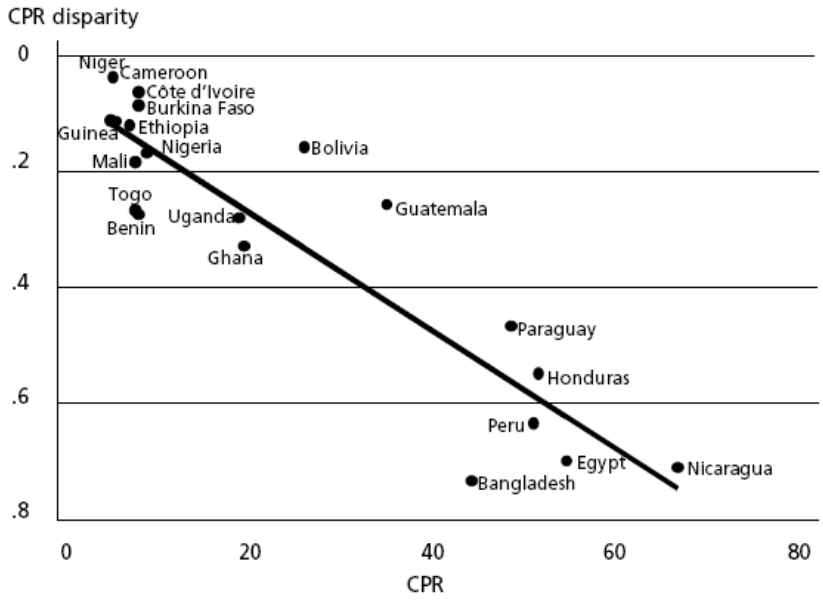
Characteristics	Wealth Quintile					Full Sample
	Poorest (%)	Poorer (%)	Middle (%)	Richer (%)	Richest (%)	
Education						
No education	66.8	50.8	38.5	27.8	15.7	39.6
Primary	26.3	32.4	33.5	33.0	22.7	29.6
Secondary	6.7	16.2	25.8	34.4	43.3	25.5
Higher	0.2	0.7	2.2	4.8	18.3	5.3
Age group						
10–18	12.4	14.5	14.6	11.6	8.2	12.2
19–39	72.7	68.4	67.5	69.1	73.7	70.3
40–49	15.0	17.1	17.9	19.2	18.2	17.5
Residence						
Urban	9.5	10.5	14.6	18.4	58.2	22.4
Rural	90.5	89.5	85.4	81.6	41.8	77.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
No. of women	**2,042**	**2,112**	**2,112**	**2,168**	**2,148**	**10,582**

Implications: Ideally, the public sector should invest the major portion of its resources in rural areas.

2. Disparity in the modern method CPR between the rich and the poor is decreasing, indicating that the national family planning program is moving toward achieving contraceptive security.

The variation in the contraceptive prevalence rate between the different segments of the family planning market is referred to as the *disparity* or *inequity* in contraceptive use. The ratio between the CPR among the poorest and richest quintile can be used as an indicator for the degree of the CPR disparity between the rich and the poor. A value of one for the ratio would indicate no disparity in CPR between the richest and the poorest quintile, while a less-than-one (and closer to zero) value of the ratio would indicate higher disparity. Figure 4a indicates that the CPR disparity between the rich and the poor is associated with the level of CPR; countries with high CPR disparity between the rich and the poor, i.e., countries with a CPR disparity ratio of less than 0.2 (for example, Niger, Cameroon, Côte d'Ivoire, Burkina Faso, Guinea, Ethiopia, and Nigeria), have very low CPR, while countries with lower CPR disparity (for example, Bangladesh, Paraguay, Honduras, Nicaragua, Peru, and Egypt) have higher CPR. One of the strategies to increase CPR to reach the objective of replacement-level fertility by the year 2010 would be to decrease the disparity in CPR between the different segments of the market. As figure 4a shows, Bangladesh has one of the lowest disparity scores of the countries analyzed.

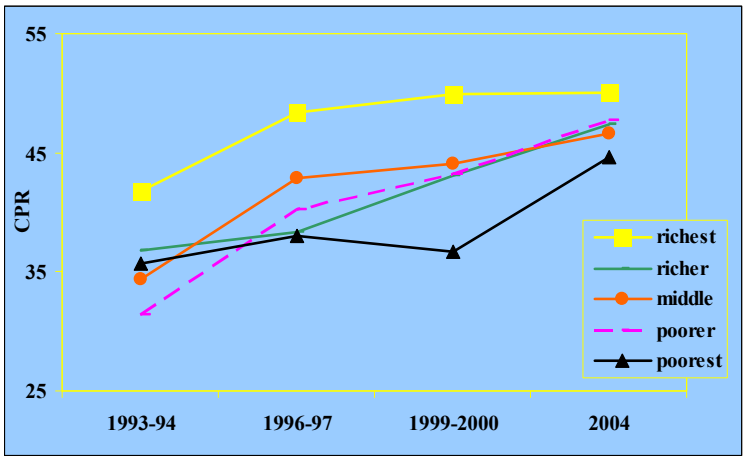
Figure 4a. Relationship between CPR Disparity Ratio and CPR in 20 Countries



Source: Karim et al. 2004

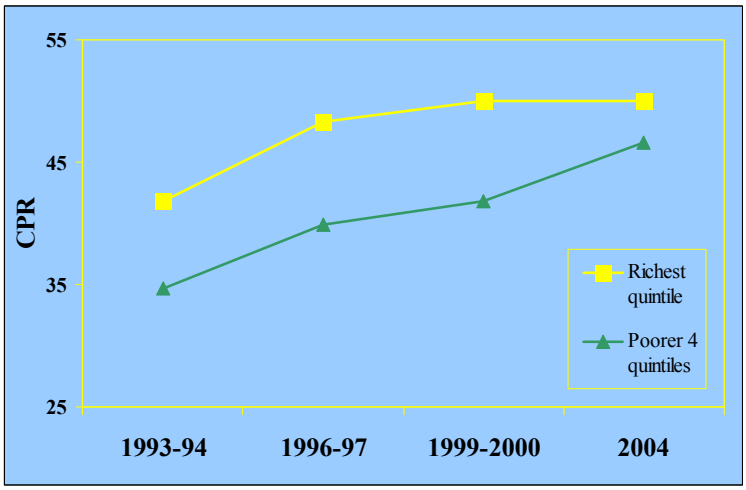
Figure 4b shows the changes in the modern method CPR among the different wealth quintiles between 1994 and 2004. Except for those who are in the poorest quintile, the modern method CPR has been steadily increasing over the last decade. The rate of increase of modern method CPR among the poorest quintile was more or less stagnant (at around 37 percent) until 2000, and lagging behind the rest; however, between 2000 and 2004, the situation changed. The modern method CPR among the poorest quintile increased from 37 percent in 2000 to 45 percent in 2004, reducing the disparity in the modern method CPR between the rich and the poor, indicating that the national family planning program is moving toward achieving its fertility goals as well as contraceptive security. *Credit should go to the public sector for this increase in CPR for the poorest contraceptive users.*

Figure 4b. Trend in the Modern Method CPR by Wealth Quintile, Bangladesh (1994–2004)



It is not surprising to note that the modern method CPR among the richest quintile is much higher compared to those who are in the poorer four quintiles; as observed earlier, there is substantial disparity between the richest and the poorer four quintiles in terms of education, income, and urban residence status, which are also the factors associated with higher contraceptive use. Nevertheless, the gap in the modern method CPR between the richest and the poorer four quintiles that has been persisting over the past decade has shown a sign of reduction in 2004 (see figure 5). Again, the findings are encouraging; they indicate the success of the Bangladesh national family planning program in recent years to improve equity in contraceptive use.

Figure 5. Trend in the Modern Method CPR among Married Women in the Richest and Poorer Four Quintiles, Bangladesh (1994–2004)



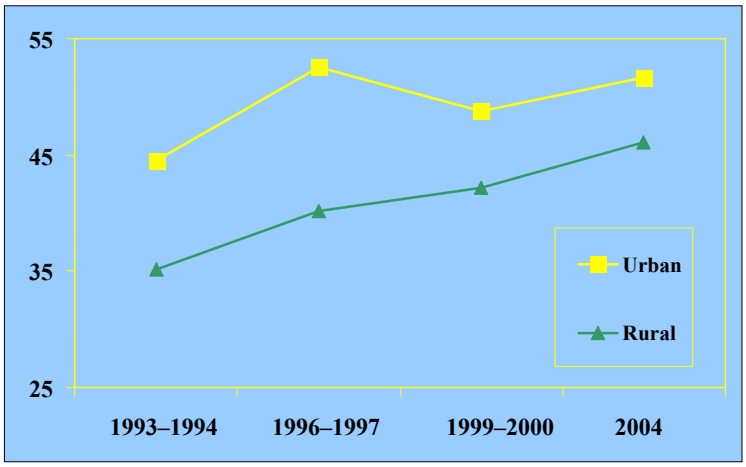
Implication: The public sector has done a good job in decreasing CPR disparity but will not reach program objectives unless this disparity is reduced further.

3. Although the urban–rural disparity in the modern method CPR is decreasing, the modern method CPR in the urban areas has remained stagnant during the past eight years; this calls for innovative strategies to address the family planning needs of the rapidly growing urban population.

The gap in the modern method CPR between urban and rural has decreased since 2000, mainly due to the stagnation of the modern method CPR in the urban area, while the modern method CPR in the rural area continued its increasing trend during the same period (see figure 6). One of the explanations for the observed

plateau of the modern method CPR in the urban area could be the increase in the migration of the rural population (who are less likely to use contraceptives) to the urban area. Figures from the BDHS 1993–1994, 1996–1997, 2000, and 2004 indicate that the percentage of the married women in Bangladesh who reported living in the urban area has doubled during the last decade, from 11 percent during 1994 and 1997 to 22 percent in 2004, indicating rapid growth of the urban population. The estimated number of currently married women in the urban area has increased by two and one-half, from 2.5 million in 1994 to 6.3 million in 2004. Nevertheless, the unmet need in the urban area is still high (9 percent; see table 2). About 1.8 million married women living in the urban area are not currently using any contraceptive but intend to do so in the future; therefore, they are the potential future family planning clients (further detail of future potential contraceptive users is discussed later in connection with figure 13).

Figure 6. Trend in the Modern Method CPR by Place of Residence, Bangladesh (1994–2004)



Implications: The national family planning program has done well in keeping up with the family planning needs of the growing urban population. However, the stagnation of the modern method CPR is an impediment to achieving the national fertility goal. Innovative strategies are needed to increase the modern method CPR among the rapidly growing urban population. Because NGOs are more flexible in terms of implementing innovative strategies, one of the approaches could be to encourage greater participation of the NGOs in the urban area. Stronger public–private partnership will also be helpful.

Table 2. Trend in Unmet Need by Selected Characteristics, Currently Married Women, Bangladesh (1994–2004)

Background Characteristics		1993–1994	1996–1997	1999–2000	2004
Wealth quintile	Poorest	17.6	17.4	20.3	13.0
	Poorer	20.3	17.5	15.9	11.7
	Middle	19.1	15.6	15.7	11.7
	Richer	18.1	16.6	14.2	11.3
	Richest	15.6	11.7	10.5	8.6
Age group	10-18	22.3	19.7	21.0	16.5
	19-39	19.2	16.7	16.1	11.8
	40-49	8.9	8.0	7.6	5.1

Continued

Table 2. Trend in Unmet Need by Selected Characteristics, Currently Married Women, Bangladesh (1994–2004) (continued)

Background Characteristics		1993–1994	1996–1997	1999–2000	2004
Residence	Urban	15.1	9.9	12.4	9.2
	Rural	18.4	16.6	16.0	11.8
Division	Barisal	18.3	18.3	15.3	12.5
	Chittagong	24.3*	21.2	19.4	16.9
	Dhaka	17.8	16.5	15.5	10.6
	Khulna	13.1	10.6	10.7	8.2
	Rajshahi	14.3	11.2	12.8	7.1
	Sylhet		21.4	22.4	20.5
Total		18.1	15.8	15.3	11.2

*Includes Sylhet

4. In addition to lower education and lower household wealth, other factors are associated with rural areas, such as access to family planning, which may further explain the urban-rural disparity in modern method CPR.

The lower modern method CPR among rural married women compared to urban married women can be partly explained by the fact that rural women are less educated and less wealthy than their urban counterparts. Nevertheless, figures 7 and 8 indicate that, in addition to lower education and lower household wealth, there are other factors associated with rural areas, such as access to family planning, which may further explain the urban–rural disparity in modern method CPR. Women in the richest quintile from rural areas are less likely to use contraceptives compared to the women in the richest quintile from urban areas (figure 7). The higher modern method use among the poorest quintile in urban areas compared to the poorest in rural areas indicates *better access to contraceptives for the urban poor than for their rural counterparts*. Similarly, urban–rural differentials in modern method CPR remain, even after accounting for the differences in education level (figure 8).

It is interesting to note that disparity in modern method CPR between the rich and the poor does not exist in the rural areas (see figure 7).

Figure 7. Comparison of Modern Method CPR by Place of Residence, Stratified by Wealth Quintile, Bangladesh (2004)

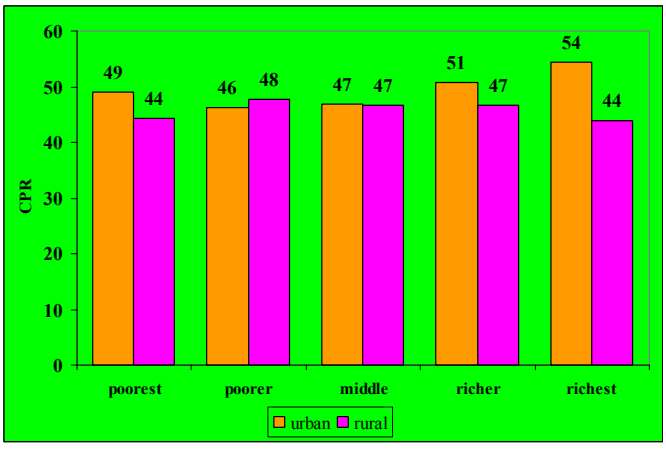
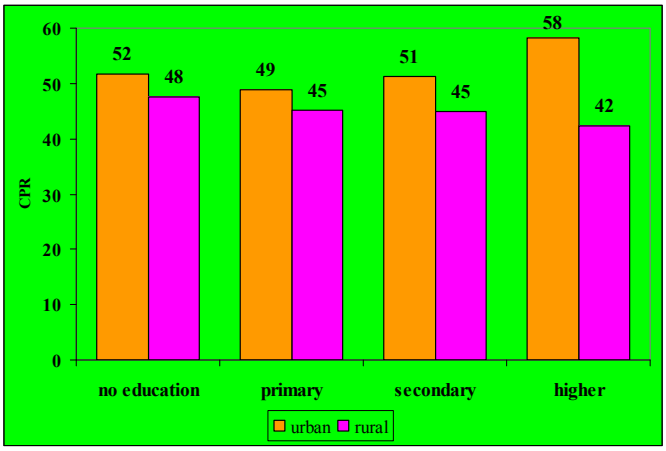


Figure 8. Comparison of Modern Method CPR by Place of Residence, Stratified by Level of Education, Bangladesh (2004)

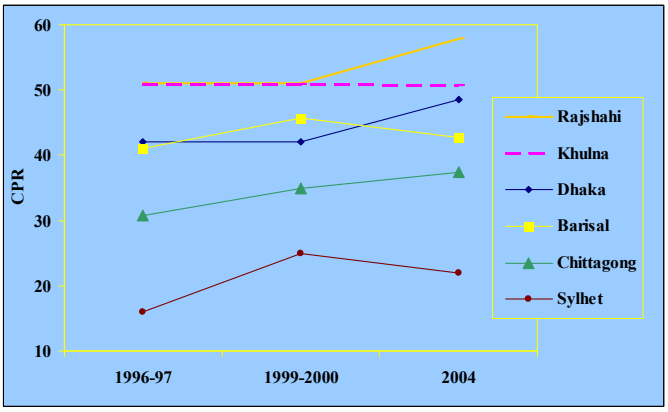


Implications: Most likely, access issues associated with rural areas are still one of the major causes of lower contraceptive use. Along with education and other developmental activities, more resources should be invested in rural areas to improve the demand for and access to family planning services.

5. There is a huge disparity in the modern method CPR among the six divisions of Bangladesh—mainly due to issues of access, among others.

The disparity in the modern method CPR by division is huge, with no sign of change in the past eight years (figure 9). The highest modern method CPR is currently observed in Rajshahi Division (58 percent), which is followed by the Khulna (51 percent), Dhaka (49 percent), Barisal (43 percent), Chittagong (37 percent), and Sylhet (22 percent) Divisions. Not surprisingly, Sylhet and Chittagong Divisions have the highest level of unmet need, 22 percent and 17 percent, respectively (see table 2).

Figure 9. Trend in the Modern Method CPR by the Administrative Divisions, Bangladesh (1997–2004)

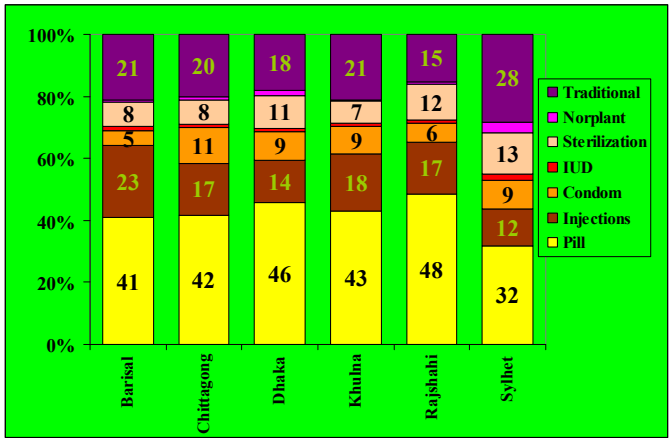


The method mix[8] by division indicates that more than one-fifth of the family planning users in Chittagong, Barisal, and Sylhet still rely on traditional methods (see figure 10). In Sylhet Division, the share of traditional methods in the method mix is the highest (28 percent); only about two-fifths of those who need contraceptives in Sylhet Division are using a modern method—a grievous situation for contraceptive security

[8] Method mix is the share of different types of method used by family planning clients.

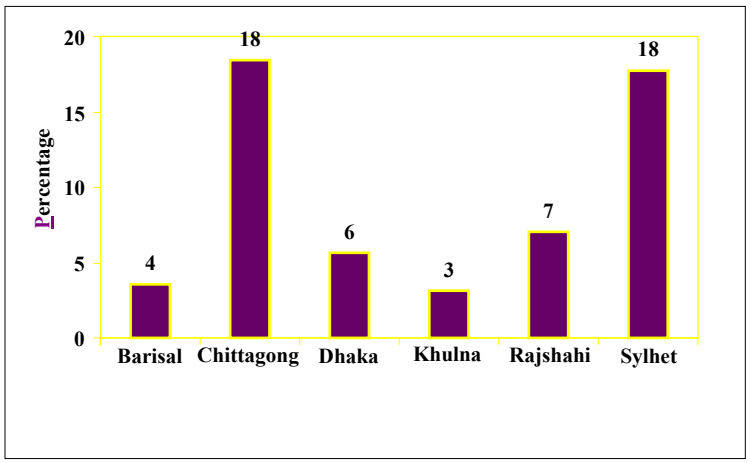
in that division (analysis not shown). Even more alarming is that modern method CPR has gone down between 2000 and 2004 in Sylhet Division.

Figure 10. Method Mix by Division, Bangladesh (2004)



The higher levels of unmet need and traditional method use in the Sylhet and Chittagong Divisions with the lowest modern method CPR indicate that more than likely there are both supply and demand barriers to access to modern method contraceptives in these areas. Figure 11 indicates that the major demand side barrier, as measured by the reported opposition to family planning, is more or less the same in Sylhet and Chittagong Divisions (at about 18 percent), suggesting that the significantly lower (about 15 percentage points) modern method CPR in Sylhet compared to Chittagong is likely due to other issues, such as access to services. The adverse terrain of Sylhet Division may be causing a barrier to access to family planning. A significant fraction of Sylhet's population live in the Haor area, which largely remains submerged in monsoon water for most of the year; this causes communication barriers to the area. Access to other maternal and child health services is also comparatively low in Sylhet Division, probably due to the same reasons.

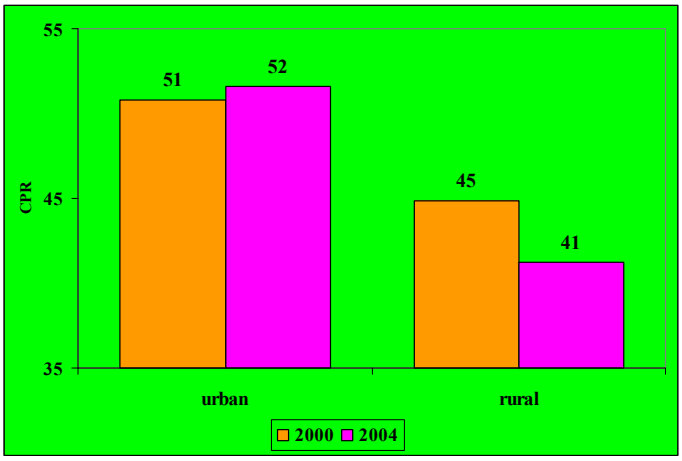
Figure 11. Percentage of Contraceptive Nonusers Reporting Opposition to Family Planning as a Reason for Not Intending to Use Contraceptives in the Future by Division, Bangladesh (2004)



Although the modern method CPR in Khulna Division is the second highest in the nation, it has remained stagnant at about 51 percent over the past eight years.

The modern method CPR in Barisal has declined from 46 percent in 2000 to 43 percent in 2004; the decline has been primarily in the rural areas where the public sector provides most of the family planning services (see figure 12).

Figure 12. Comparison of the Modern Method CPR between 2000 and 2004 in Barisal Division, Bangladesh

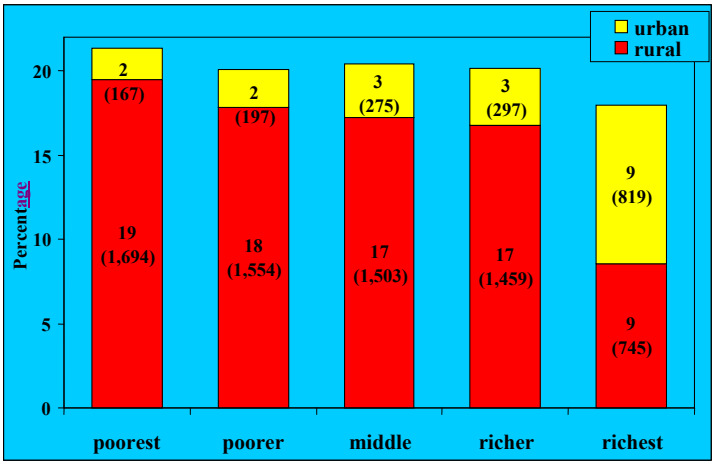


Implications: The strategy of the national family planning program should be different for different regions of the country. For Khulna Division, the strategy of the family planning program should be to identify and serve the underserved population; for Sylhet Division, solving the access issues should be the main objective; while for Barisal Division, the public sector should review its current strategy and identify the changes over the past four years that may have lowered the modern method CPR. Proper market segmentation for improving efficiency of the public–private partnership could be the answer to address the plateau of the modern method CPR in Khulna Division; while for Sylhet Division, innovative techniques should be identified to increase access to health and family planning services to the hard-to-reach areas. The problem with access to health and family planning services in Sylhet Division has been well known—indicating an urgent need to modify the current family planning and service delivery strategy. In this respect, promoting NGOs, with innovative strategies, could be one of the approaches. However, a strong public-private partnership will be required to develop the appropriate strategy. Because the high opposition to family planning existing in Sylhet and Chittagong Divisions is mainly due to religious reasons, it could be helpful to revisit the religious leader program to desensitize opposition to family planning, especially for these two divisions.

6. About 8.7 million potential future contraceptive users will join the current pool of about 13.6 million users.

Ross, Stover, and Adelaja (2005) argue that the future intention to use contraceptives among current nonusers is a better indicator than the unmet need for understanding the potential future market for contraceptives. The 2004 BDHS estimates of future intention to use contraceptives among the different market segments were factored by the target population size figures obtained from United Nations world population projections to determine the number of potential future method users. The analysis indicates that there are about 8.7 million currently married women of reproductive age who presently are not using any contraceptives but intend to use a method in the future. About one-fifth of the future intended users live in urban areas while the rest live in rural areas (figure 13). An estimated 62 percent (i.e., 5.4 million) of those who intend to use contraceptives in the future are from the poorest three quintiles and mainly reside in rural areas; these are the potential future clients for free public-sector contraceptives. The potential future family planning client for the private sector is also huge: about 3.3 million intending to use a method are from the richest two quintiles.

Figure 13. Percentage Distribution of the Currently Married Women Who Are Not Using Contraceptives but Intend to Use Them in the Future by Residence and Wealth Quintile, Bangladesh (2004)



Note: Number of women (in 1,000s) is given in parentheses; total intended future users = 8,708 thousand.

Implications: The public sector faces the prospect of meeting the needs of as many as 5 million new users from the bottom three quintiles. This will require a substantial increase in public-sector provision. To facilitate and encourage richer clients to use the private sector in the near future will require an even stronger public–private partnership.

7. The shifting method mix from long-term and permanent methods to short-term methods observed in the 1999–2000 BDHS is still continuing and threatens the contraceptive security of the country; however, the declining trend in the long-term method use is expected to change.

An efficient family planning market would allow an appropriate method mix according to the needs of its clients. For example, family planning clients who wish to limit birth should be using long-term methods such as Norplant, IUDs, or sterilization; whereas clients who want to space births should be using short-term methods, such as injectables, oral pills, or condoms. From the public-sector provider's perspective, client reliance on long-term methods is more cost-effective from a commodity perspective—mainly because higher procurement and service delivery costs are associated with maintaining the supply of short-term methods. The method mix should also reflect the clients' choices; this is essential for a successful family planning program.

The share of the long-term methods (sterilization, Norplant, and IUDs) among married contraceptive users declined from 25 percent in 1994 to about 12 percent in 2004. In contrast, the share of the short-term methods, mainly oral pills and injectables, increased from 39 percent and 10 percent, respectively, in 1994, to 45 percent and 17 percent, respectively, in 2004 (NIPORT, MA, and ORCM 2005).

Table 3. Trend in the Percentage of the Currently Married Women Who Have Adopted Sterilization According to Age Group, Bangladesh (1994–2004)

Age Group	1993–1994	1996–1997	1999–2000	2004
10–14	0.0	0.0	0.0	0.0
15–19	0.1	0.0	0.1	0.0
20–24	2.0	1.7	0.7	0.3
25–29	6.6	4.5	2.7	2.2
30–34	12.4	11.1	7.2	5.4
35–39	18.4	15.9	14.9	9.6
40–44	16.6	19.0	18.1	14.1
45–49	12.0	16.2	18.3	16.7
Total	**8.1**	**7.6**	**6.7**	**5.2**

During the mid-1980s, the number of sterilizations performed annually by the national family planning program in Bangladesh rose to as many as 600,000 each year and then dropped to about 170,000 by 1991 (Vansintejan 1992). Currently, around 200,000 sterilizations are performed annually (Hudgins 2005). Most of the women who were sterilized during the mid-1980s have gradually left the reproductive age population while the newly sterilized women during the later years did not replace them in number—resulting in the decline of the method-specific CPR for sterilization. Table 3 illustrates the phenomenon that the current rate of sterilization is not keeping up with the aging out of sterilized women from the reproductive age population. The cohort of currently married women who had the highest rate of sterilization during 1994 were in the 35- to 39-year-old age group; over time, the cohort with the highest sterilization rate, which appears in bold italic in table 3, aged and passed out of the reproductive age population—and were not replaced by the prevailing level of sterilization rate. However, the declining trend in the sterilization prevalence rate is expected to change as more attention is given to public services for long-term and permanent methods. If the projected annual number of sterilization procedures, as estimated by Hudgins (2005), can be performed by the Bangladesh national family planning program, the declining trend in sterilization rates of the country will change. Based on very recent performance figures from the Directorate General, Family Planning (DGFP), Hudgins (2005) reported that the Bangladesh national family planning program is capable of performing about 200,000 male and female sterilization procedures each year. Such a performance would annually increase the method-specific CPR for sterilization by about 0.71 percentage points (100 × [200,000 ÷ mid-year population of the currently married 10- to 49-year-old women in 2004]), which is clearly greater than the expected 0.24 percentage points decline in sterilization rate next year due to the sterilized women leaving the reproductive age pool (0.24 = 100 × [mid-year population of the 49-year-old currently married women who are sterilized in 2004 ÷ mid-year population of the currently married 10- to 45-year-old women in 2004]); therefore, this should result in a net increase of the sterilization-specific CPR during the coming years.

Implications: The decline in the number of women still of reproductive age who have had sterilizations is a consequence of the reduction in procedures from the 600,000 per annum conducted in the early years of Bangladesh's national family planning program. Recent efforts to revitalize the public delivery of long-term and permanent methods will help offset this trend. Much more, however, is needed if sterilization is to contribute even more to CPR.

8. Only 17 percent of the 6.1 million modern method users with three or more children (most of whom do not want any more children) have currently adopted long-term or permanent methods, leaving a huge number of potential clients for longer-term methods.

Figure 14 indicates that method mix varies by parity. Short-term methods, especially condoms, are more popular among women using contraceptives who have no children, while long-term methods are more popular among the women using contraceptives who have three or more children. Appropriately, the choice of pills and condoms among method users with no children is increasing from 33 percent and 20 percent, respectively, in 1994, to 44 percent and 25 percent, respectively, in 2004. However, contrary to the efficiency of the family planning program, the choice for injectables is increasing among the method users with three or more children, from 11 percent in 1994 to 19 percent in 2004; while sterilization as the method of choice is decreasing among them. Since most (more than 75 percent) of the women with three or more children do not want any more children (figure 15), most of the contraceptive-method-using couples from this group should be candidates for sterilization and other long-term methods. Currently, about 6.1 million couples using contraceptives have three or more children, and only about one million (i.e., 17 percent) of them have accepted sterilization or other long-term methods, leaving a considerable number of potential clients for sterilization and other long-term methods. Furthermore, about 45 percent of the women with three or more children who are currently not using any contraceptives wish to use a method in the future (analysis not shown), which translates into about 2.3 million potential sterilization and other long-term method (including IUD and Norplant) clients. Therefore, the annual projections for sterilization and other longer-term method estimated by Hudgins (2005) are not unrealistic.

Figure 14. Trend of the Method Mix by Number of Children, Bangladesh (1994 and 2004)

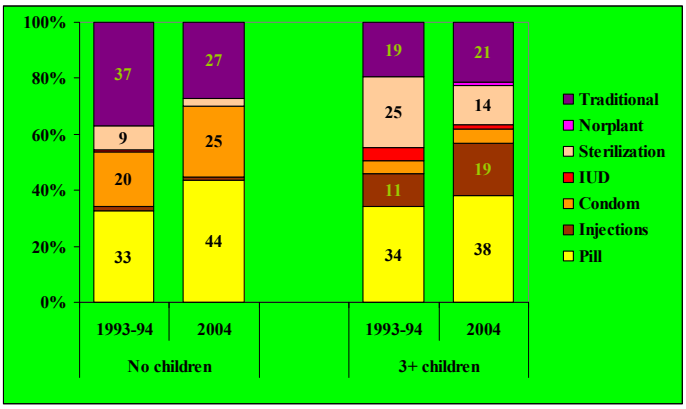
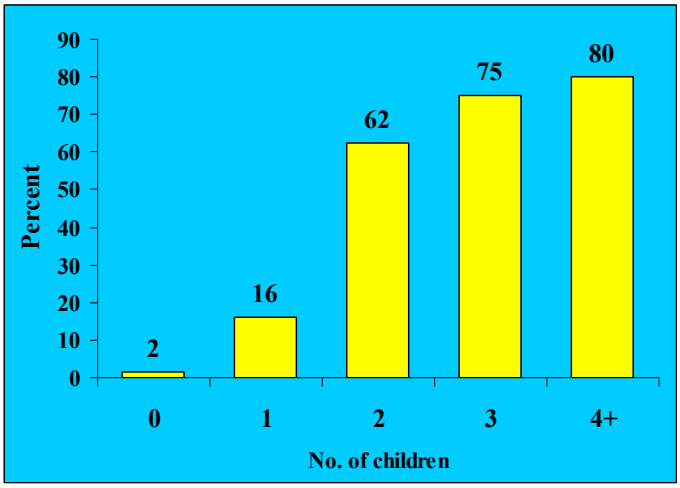


Figure 6. Percentage of the Currently Married Women Who Do Not Want Any More Children, by Parity, Bangladesh (2004)



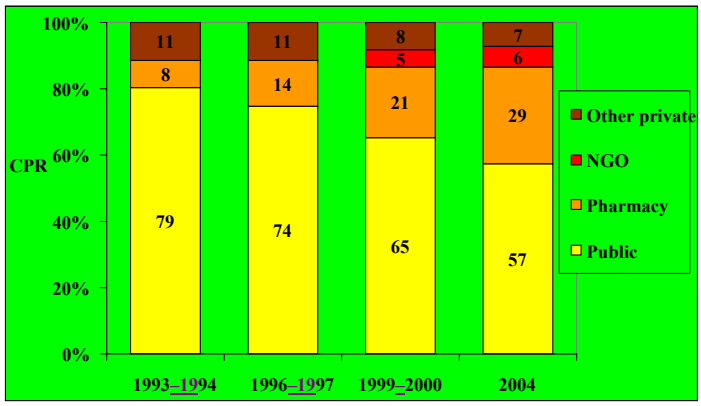
Implications: The public and private sector need to do far more in reaching out to couples who do not want more children to offer long-term and permanent methods.

9. The private sector is increasingly playing a significant role in the contraceptive market in Bangladesh.

The analysis of the trend in the source for contraceptives indicates that the private sector is increasingly playing a significant role in the market for contraceptives in Bangladesh (figure 16). The percentage of the contraceptive market served by the private sector increased from 20 percent in 1994 to 43 percent in 2004. The growth of pharmacies in the market share for contraceptives has been the most dramatic, increasing more than threefold, from only 8 percent in 1994 to 29 percent in 2004. *However, the public sector is still the major source for contraceptives in Bangladesh, providing 57 percent of the total market.*

Although (from figure 16) it appears that the public-sector contraceptive users are shifting to the private sector, *the actual size of the public sector, in terms of number of clients it is serving, is still growing* (figure 17).[9] In 1994, the public sector was serving an estimated 6.5 million clients, which in 2004 has grown to an estimated 8.0 million. The number of family planning clients served by pharmacies has grown more than sixfold, from an estimate of about 0.6 million, in 1994, to an estimate of about 3.9 million in 2004. The total number of contraceptive clients in Bangladesh increased substantially from an estimate of 8.1 million in 1994 to an estimate of 13.6 million in 2004.

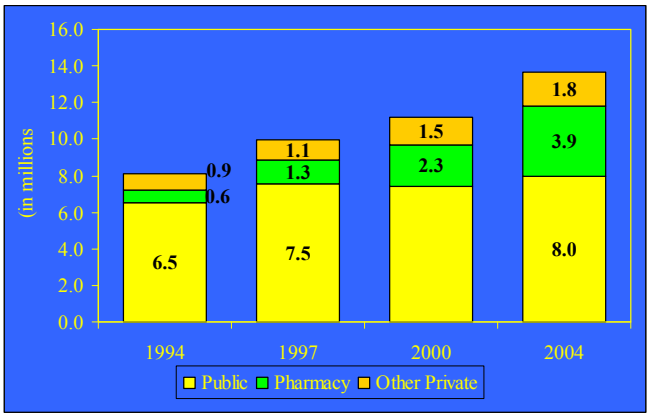
Figure 16. Trend in the Source Mix for Contraceptives, Bangladesh, (1994–2004)



Note: In 1993–1994 and 1996–1997 BDHS; NGOs were grouped with other private sources,

[9] The increasing number of contraceptive users in Bangladesh is due to the growth of the modern method CPR factored by the growth of the married women population in the reproductive age.

Figure 77. Trend of the Estimated Number of Modern Method Users by Source, Bangladesh (1994–2004)



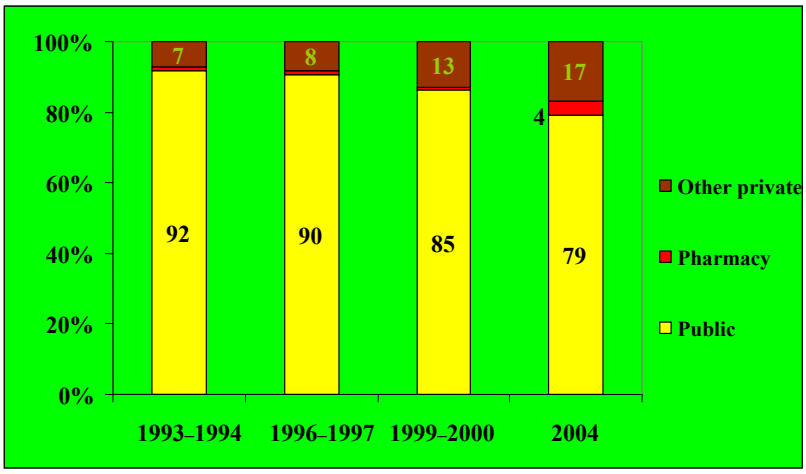
Implications: There is a growing public–private partnership in the Bangladesh family planning market, which is very encouraging for the contraceptive security in the country. The private sector is playing a major role in sharing the burden of serving the rapidly growing number of family planning clients in Bangladesh. The future challenge for both the public and private sector is to serve about 5.4 million and 3.3 million more potential clients, respectively.

The private sector has emerged as a potential supplier for injectables.

Until recently, the public sector was the only source for most of the injectable users. The trend has changed. The percentage of the injectable market served by the private sector has increased threefold from 7 percent in 1994 to 21 percent in 2004 (figure 18). In recent years, the pharmacy has emerged as one of the sources for injectables, reflecting SMC's new role in providing the method.

Nevertheless, the public sector is still the major source (79 percent) for injectables.

Figure 18. Trend in the Source Mix for Injectables, Bangladesh (1994–2004)



Implications: The increasing trend of the private sector in the injectable market in Bangladesh is encouraging. The private sector should develop strategies to further increase its role in the injectable contraceptive market.

The SMC has emerged as one of the major suppliers for the oral pill market in Bangladesh.

The share of SMC in the oral pill market in Bangladesh has been increasing very rapidly over the past decade, from 15 percent in 1994 to 40 percent in 2004 (figure 19); nevertheless, *the public sector is still the major (56 percent) supplier for oral pill users.* Although, from figure 19, it appears that the public-sector pill users are switching to the private sector, this is not entirely true; *the estimated number of public-sector pill users is still growing,* from 29 million in 1994 to 41 million in 2004 (figure 20).

Figure 19. Trend in the Source for Oral Pills, Bangladesh (1994–2004)

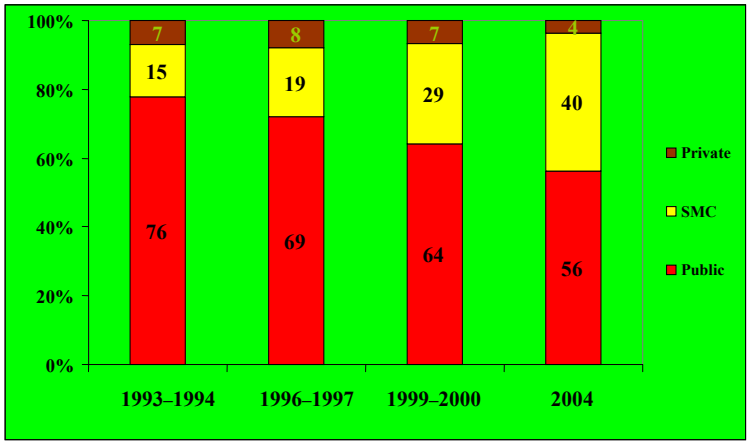
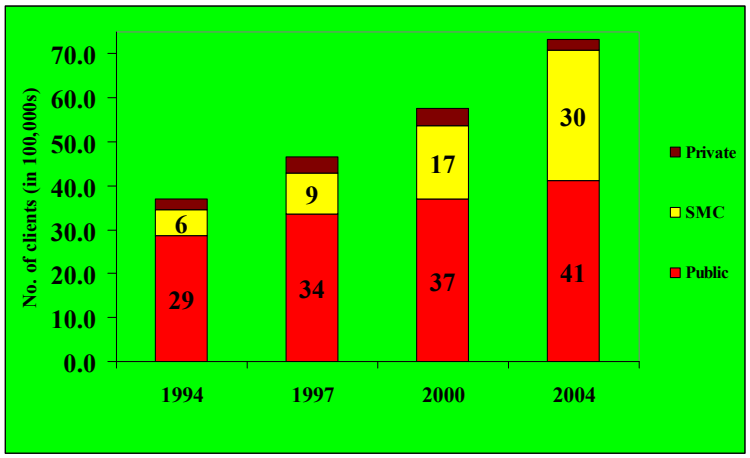


Figure 20. Trend in the Number of Oral Pill Clients by Source, Bangladesh (1994–2004)

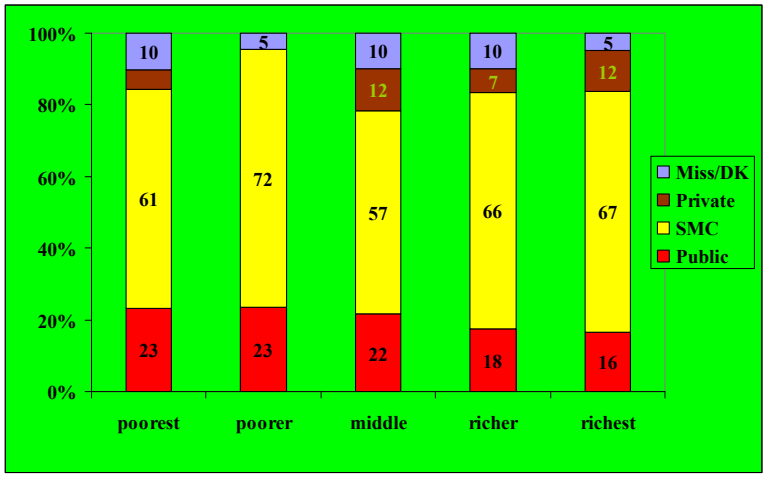


Implications: Private-sector participation in the oral pill market has immensely reduced the burden of the private sector to meet the growing demand for oral pills. Continuation of the current strategy to increase the market supply for pills by the private sector will be very useful for the contraceptive security of the country in the long run.

SMC is the major source for condoms among users from all the five wealth quintiles (see figure 21).

The reason the majority of the poor pay higher prices for SMC and other private-sector condoms rather than getting them more cheaply from the public sector may be associated with access issues. Males, who are the major clients for condoms, may not feel comfortable obtaining supplies from the public-sector service delivery points, which are oriented toward serving women.

Figure 21. Source Mix for Condom Users by Wealth Quintile, Bangladesh (2004)



Implications: The willingness to pay for condoms, even among the poor, is encouraging. However, the possibility of the existence of barriers for males to access public sector condoms should be scrutinized.

There is an enormous opportunity for the private sector to increase its role in providing longer-term contraceptives.

The public sector is the major provider for long-term contraceptives, i.e., for IUDs, Norplant, and sterilization. However, the percentage of the long-term method users who obtained their services from the private sector increased from 8 percent in 1994 to 15 percent in 2004 (figure 22). It is encouraging to note that the rate of increase of the market share for long-term methods from the private sector between 1994 and 2004 is associated with wealth; it increased comparatively as women's wealth status changed from poor to the richest quintile (see figure 23). Nevertheless, the public sector is still providing service for long-term methods to 71 percent of the women in the richest quintile.

Figure 22. Trend in Source Mix for Long-Term Methods (i.e., IUD, Norplant, and Sterilization), Bangladesh (1994–2004)

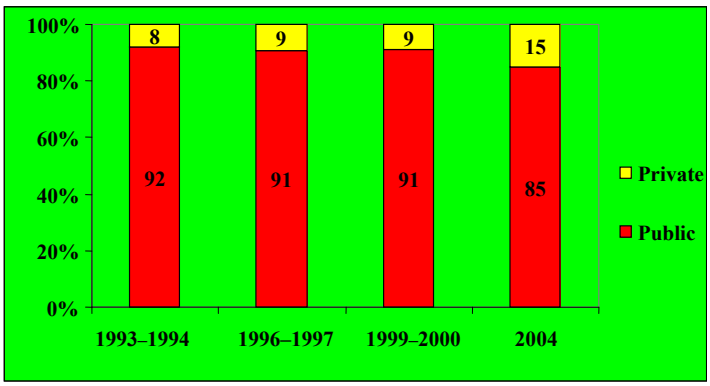
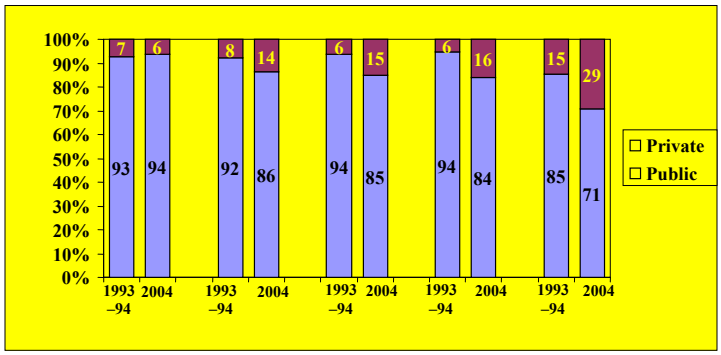


Figure 23. Trend in Source Mix for Long-Term Methods by Wealth Quintile, Bangladesh (1994–2004)



Implications: A greater private-sector role in providing long-term contraceptive methods would most likely initiate long-term method adoption by the rich—reversing the low popularity currently observed of long-term methods among rich women using contraceptives in Bangladesh. As indicated earlier, the potential market for long-term methods in Bangladesh is immense (about 5.6 million). One-fifth of this market is from the richest quintile, which gives the private sector the opportunity to further explore the long-term contraceptive market.

10. The role of the private sector in serving the rapidly growing urban population has been impressive.

Figure 24 indicates that the source mix in urban areas has drastically changed during the past decade. In 1994, the public sector was the major source for contraceptives in urban areas, providing contraceptives to 58 percent of the 1.1 million modern method users; however, currently, the private sector is the major source, providing contraceptives to 62 percent of the 3.3 million urban modern method users. Nevertheless, the estimated number of public-sector clients is still growing in both the urban and rural areas (see figure 25).

Figure 24. Trend in Source Mix by Place of Residence, Bangladesh (1994 and 2004)

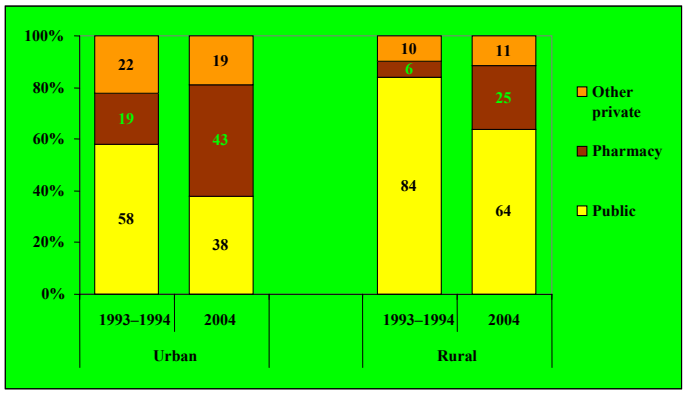
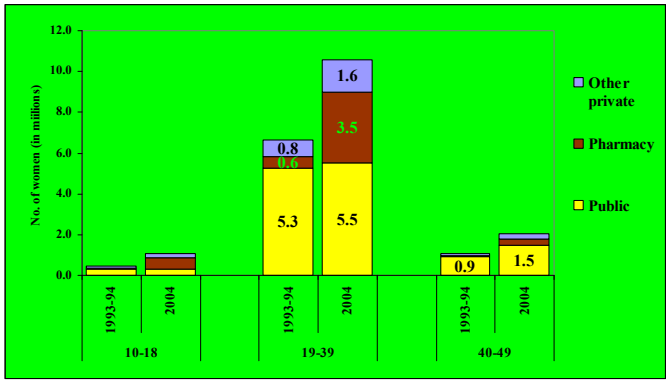


Figure 25. Trend in the Number of Public- and Private-Sector Clients by Place of Residence, Bangladesh (1994 and 2004)



Implications: The private sector has responded well to the rapidly growing contraceptive needs of the urban population. However, more needs to be done to overcome the stagnation of the modern method CPR in urban areas. As discussed earlier, public-private partnerships should create innovative strategies for the NGOs to serve the underserved and the vulnerable urban population.

11. The private sector is increasingly reaching out to the younger family planning clients.

The private sector is expanding services to women users from all age groups (figure 26). Although it appears from figure 26 that the public-sector clients in all age groups are switching to the private sector, this is deceptive; the trend in the estimated number of public and private-sector clients by age group indicates that public-sector clients are probably not switching to the private sector; rather, the private sector is expanding its services among new clients in the younger age group much more rapidly than the public sector. Figure 27 indicates that the estimated number of public-sector clients has increased mainly among the older age groups, while among the younger age groups the numbers are increasing very slowly, even though there are substantial numbers of potential future contraceptive users in the younger ages who are appropriate public-sector clients. Of the estimated 8.7 million potential future family planning users, an estimate of 1.0 million are in the 10- to 18-year-old age group and 2.5 million are in the 19- to 39-year-old age group who are from the poorest two quintiles; these are potential clients for the public sector.

Figure 26. Trend in Source Mix by Age Group, Bangladesh (1994 and 2004)

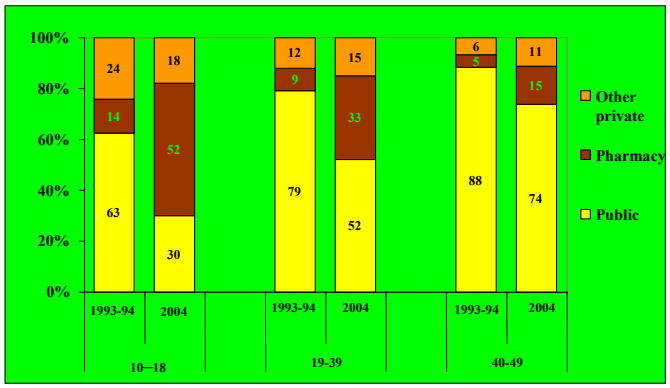
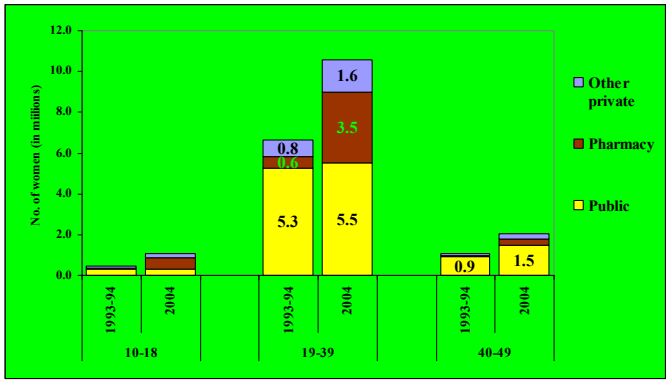


Figure 27. Trend in the Number of Public- and Private-Sector Clients by Age Group, Bangladesh (1994 and 2004)

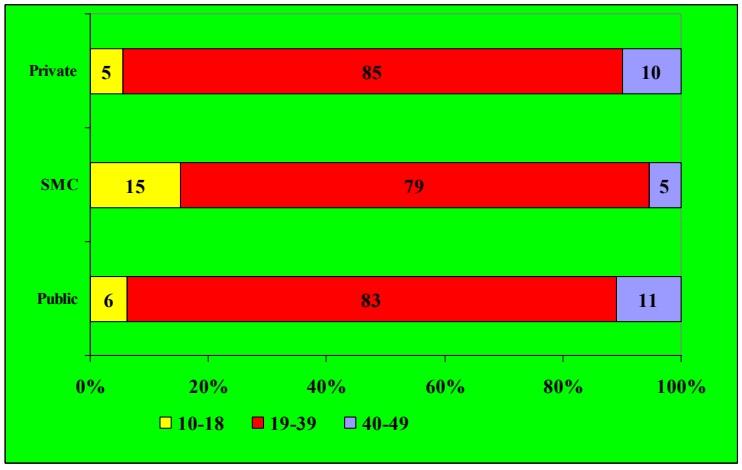


Implications: The private sector is responding to the needs of the younger age group, which mainly uses short-term methods. Although a public-private competition in the contraceptive market is not desirable, there is, nevertheless, an immediate need for the public sector to formulate youth-friendly strategies to reach the younger age group who are also poor.

About 15 percent of the SMC oral pill users are 10- to 18-year-old married women.

It is interesting to note that the age profile of the SMC oral pill users is comparatively younger than the age profile of the public-sector oral pill users (figure 28). About 15 percent of the SMC oral pill users are 10- to 18-year-old married women, while only 6 percent of the public-sector oral pill users are in that age group.

Figure 28. Age Profile of Oral Pill Users by Source, Bangladesh (2004)



As earlier indicated, an estimate of about 1.0 million 10- to 18-year-old married women who are future potential family planning users are from the poorest two quintiles; therefore, the public sector needs to identify youth-friendly strategies to improve their coverage among the oral contraceptive needs of the younger population.

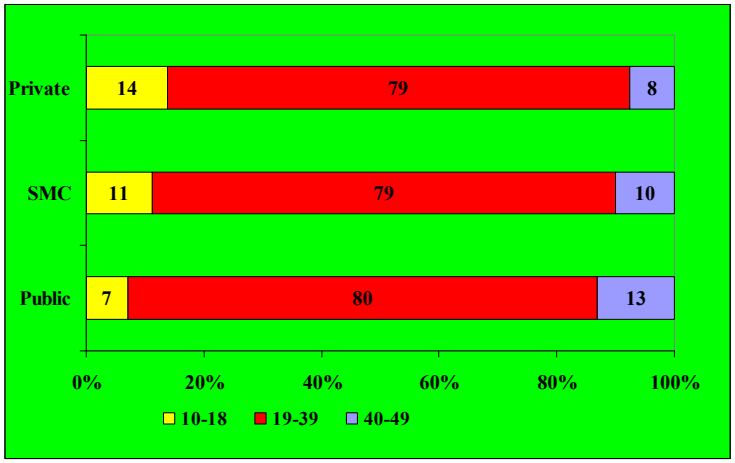
Implications: The public sector needs to revisit its strategy for reaching out to young couples, including newlyweds.

More than 11 percent of the private-sector condom users are 10- to 18-year-old couples.

The age profile of condom users by source indicates that younger couples are more likely to obtain their condom supplies from the private sector (including SMC). More than 11 percent of the private-sector

condom users are in the 10- to 18-year-old age group; this group represents only 7 percent for the public sector (figure 29).

Figure 29. Age Profile of Condom Users by Source, Bangladesh (2004)



Implications: The need of young-couple or newlywed friendly services by the public sector, as indicated earlier, should also incorporate reaching out to males to ensure public-sector condom use by young couples, especially those who are poor.

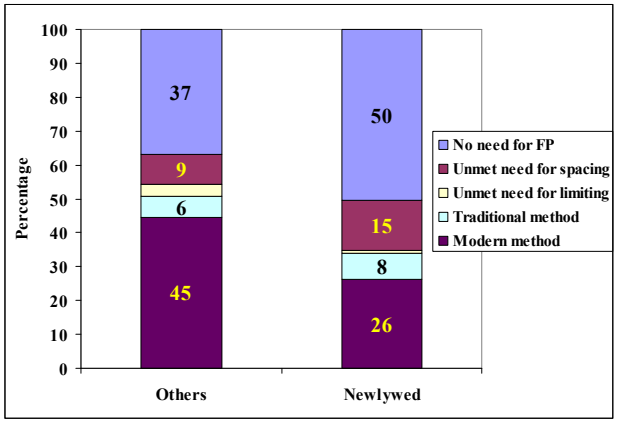
12. Unmet need for birth spacing is high among newlyweds compared with other married women in the same age group.

The Bangladesh national family planning program identifies newlyweds[10] as an underserved group. The newlywed women primarily (more than 95 percent) fall in the 10–24-year age group. The BDHS 2004 indicates that 10- to 24-year-old married women, in general, have higher unmet need for family planning than older married women of reproductive age. As such, it would be informative to see whether family planning services targeting the 10- to 24-year-old married women would be sufficient to address the family planning needs of newlyweds or whether a special programmatic effort would be required. For this purpose, unmet need, contraceptive use, and source for contraceptives is compared between the 15- to 24-year-old newlywed women with other married women in the same age group. Because all of the 10- to 14-year-olds were newlyweds, they were omitted from the analysis because they lacked a comparison group in the same age group.

As expected, newlyweds are less likely to use modern method contraceptives compared to other married women in the same age group (26 percent versus 45 percent, see figure 30) mainly because newlyweds want to bear a child soon (analysis not shown), which is a traditional expectation. However, the higher unmet need for birth spacing among the newlyweds compared to the other married women in the same age group (15 percent versus 9 percent) indicates that they need special attention.

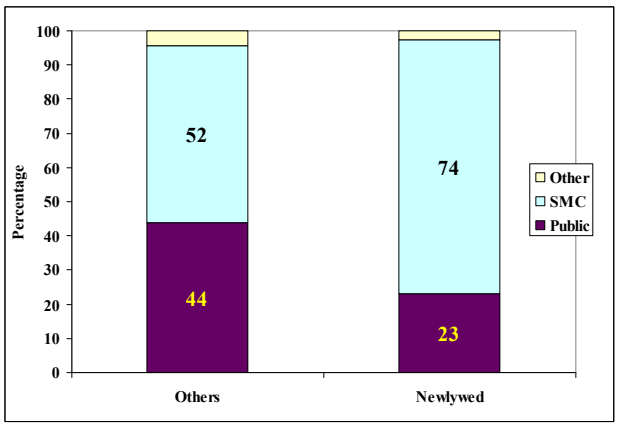
[10] Newlywed women are defined as those who married within the last two years of the survey.

Figure 30. Family Planning Use and Unmet Need Among 15- to 24-Year Old Married Women, According to Newlywed Status (BDHS 2004)



It is interesting to note that the private sector, mainly SMC, is more efficient in meeting the family planning needs of newlyweds compared to the public sector (see figure 31). The percentage of newlywed pill users who obtain their supplies from the public sector is only 23 percent compared with 44 percent among others in the same age group.

Figure 31. Source for Supplies among 15- to 24-Year-Old Married Women Pill Users, According to Newlywed Status (BDHS 2004)



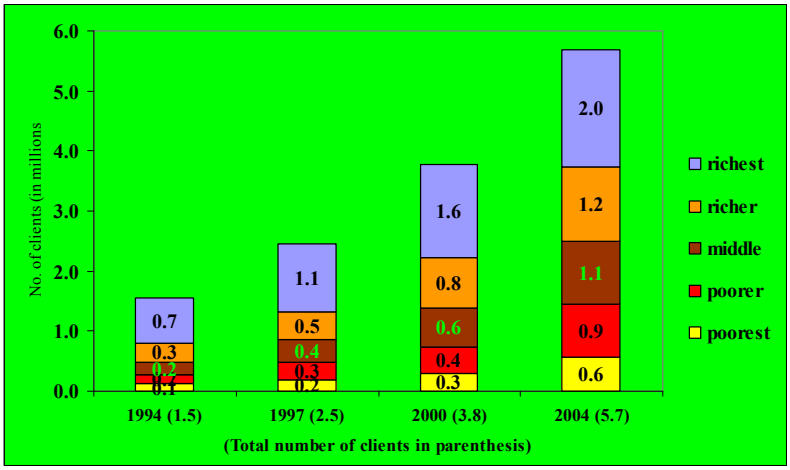
Implications: Although reaching out to young couples to meet their unmet need for family planning should remain a priority for the national family planning program, it would not be sufficient to meet all of the family planning needs among newlyweds. Information, education, and communication (IEC) activities should be reviewed to see whether (1) the young couples are adequately targeted, (2) a special focus for newlyweds is adequately incorporated, and (3) there are strategies to promote birth spacing among the newlyweds (to alter the norm of bearing a child soon after marriage). In addition, as indicated earlier, the public sector should assess the youth and newlywed friendliness of its services while reviewing its IEC strategy.

13. The rapidly expanding private sector is also serving the poor.

The estimated number of private-sector clients is rapidly increasing among all five wealth quintiles (figure 32). However, the rate of expansion is much higher among the poor compared with the rich. The estimated number of private-sector clients in the poorest three quintiles has grown five-fold from 0.5 million users in 1994 to 2.5 million users in 2004 while the number of private-sector clients in the richest two quintiles

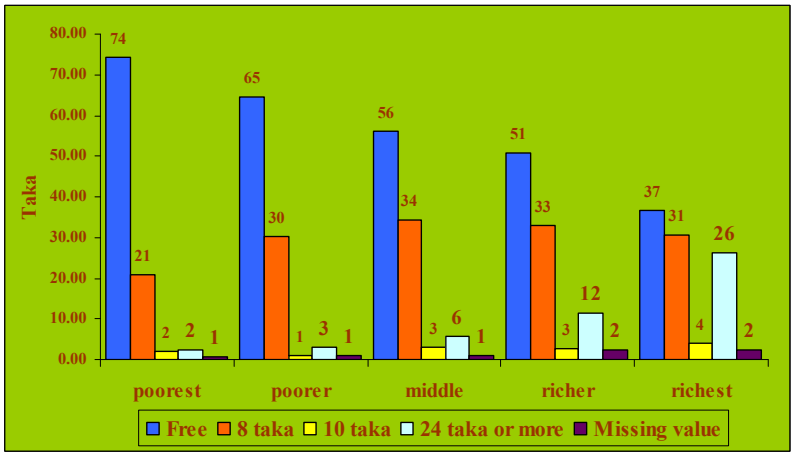
increased threefold from 1.1 million to 3.2 million during the same period. The expansion of the private sector among the poor is mainly in the rural areas (analysis not shown).

Figure 32. Trend in the Number of Private-Sector Clients, According to Wealth Profile, Bangladesh (1994–2004)



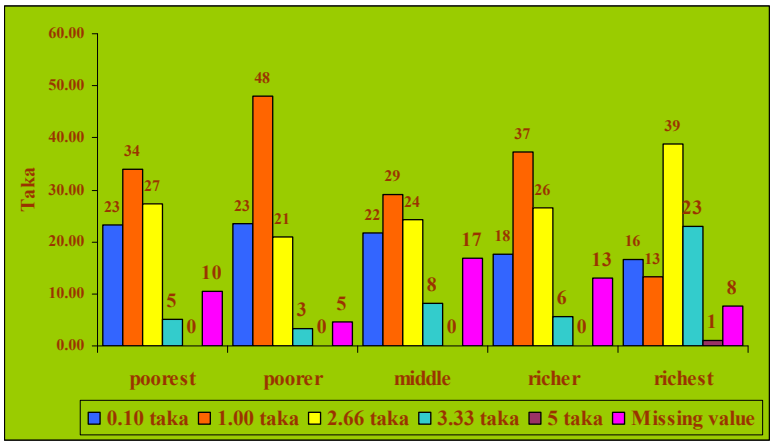
Twenty-five percent of the oral pill users from the poorest quintile are paying 8 taka[11] or more for the cycle of pill they are currently using (figure 33). Those who are poor and paying for oral contraceptives are mainly obtaining SMC oral pills that are less expensive (i.e., subsidized, see figure 33). As expected, some of the pill users from the richest quintiles are paying for unsubsidized or more expensive pills. Similarly, about 67 percent of the condom users from the poorest quintile are paying for subsidized SMC condoms while some of the rich condom users are paying more (see figure 34).

Figure 33. Percentage Distribution of the Oral Pill Users by the Current Market Price (per cycle) for the Pill Brand They Are Using, by Wealth Quintile, Bangladesh (2004)



[11] U.S.$1.00 = 68.1 taka

Figure 34. Percentage Distribution of the Condom Users by the Current Market Price (per piece) for the Condom Brand They Are Using, by Wealth Quintile, Bangladesh (2004)



Implications: Is the expansion of the private sector creating a burden on the poor? It is more likely that the poor are increasingly willing to pay for contraceptives. Because some of the SMC contraceptives are highly subsidized, it is not surprising that the poor are able to pay. *Subsidized SMC contraceptives are playing an increasing role in achieving contraceptive security in Bangladesh.*

14. The effectiveness of the public–private partnership in the contraceptive market of Bangladesh is improving.

The percentage of the family planning users from the richest quintile obtaining supplies from the public sector has declined from 60 percent in 1994 to 31 percent in 2004 (figure 35). The private sector has expanded services to female users from all five wealth quintiles. Although, from figure 35, it appears that the public-sector clients in all five wealth quintiles are switching to the private sector, this is not entirely true; the trend in the estimated number of public and private-sector clients by wealth quintile indicates that *the public-sector users from the wealthiest quintile alone are switching to the private sector—an ideal trend to improve the efficiency of the public-private partnership.* Figure 36 indicates that, between 1994 and 2004, the estimated number of public-sector clients has increased in all the poorer four quintiles, from 6.5 million to 7.8 million, while the estimated number of public-sector clients in the richest quintile has decreased during the same period, from 1.2 million to 0.9 million.

Figure 35. Trend in the Source Mix by Wealth Quintile, Bangladesh (1994 and 2004)

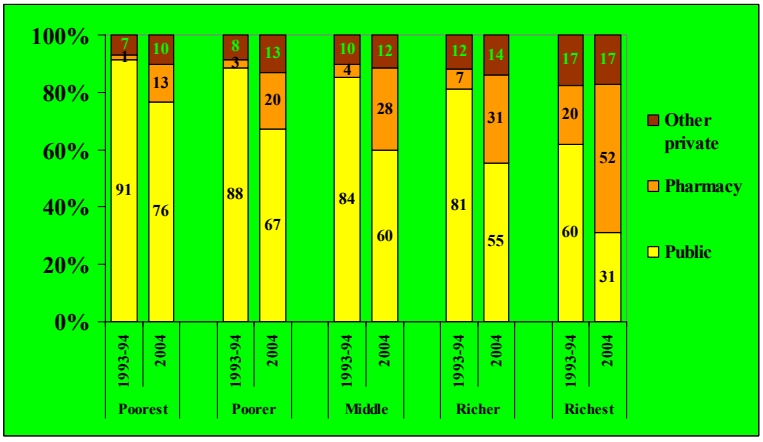
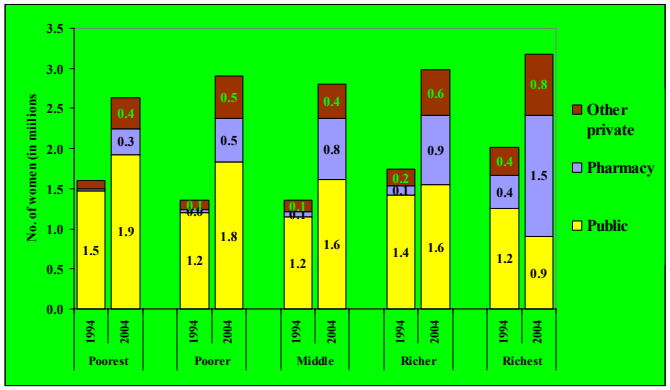


Figure 36. Trend in the Number of Modern Method Users by Source, According to Wealth, Bangladesh (1994 and 2004)



Implication: *The public sector is increasingly reaching out to the poor.* The percentage of the public-sector contraceptives that goes to the poorest two quintiles has increased from 41 percent, in 1994, to 47 percent, in 2000, and gained an additional percentage point between 2000 and 2004 (figure 37). The public-sector targeting of the poor is even better in rural areas; only 7 percent of public-sector contraceptives are going to rural women in the richest quintile (figure 38). However, there is still room for diverting public-sector resources from the richest quintile to the poorer quintiles. *The richest quintile still represents 35 percent of the public-sector clients in the urban area.*

Figure 37. Trend of the Wealth Profile of the Public Sector Clients, Bangladesh (1994–2004)

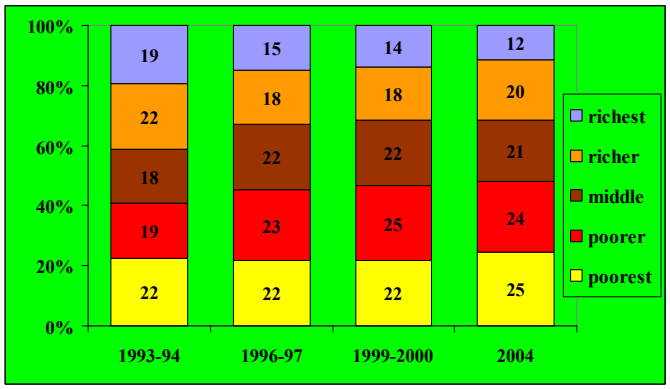
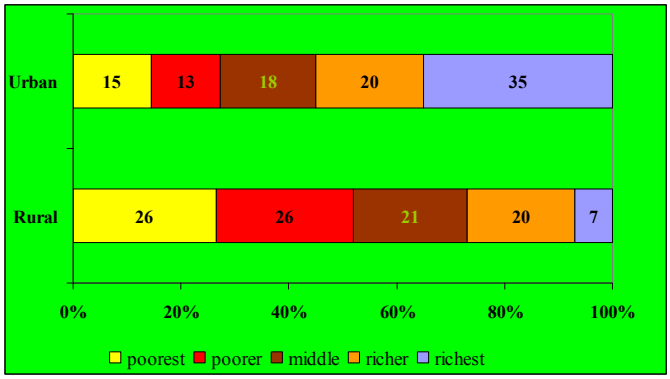


Figure 38. Wealth Profile of Public-Sector Clients by Place of Residence, Bangladesh (2004)



14.1 The injectable contraceptive market in Bangladesh is still not well segmented.

The majority (52 percent) of the public-sector injectable clients are from the poorest two quintiles while the richest two quintiles are the major (53 percent) clients for the private sector (figure 39). Even though the private sector is growing as a source for injectables for the rich, the majority (52 percent) of the injectable users from the richest quintile are still using public-sector sources (figure 40). Further efficiency of the public–private partnership in the injectable market can be expected. *It is interesting to note that some of the poor women are willing to pay for injectables.*

Figure 39. Wealth Profile of Injectable Clients by Source, Bangladesh (2004)

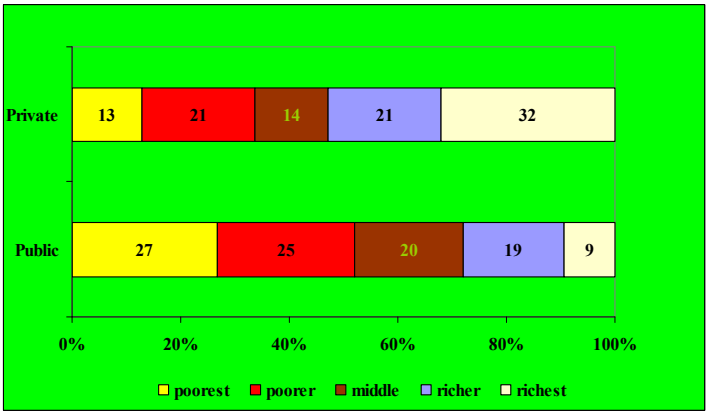
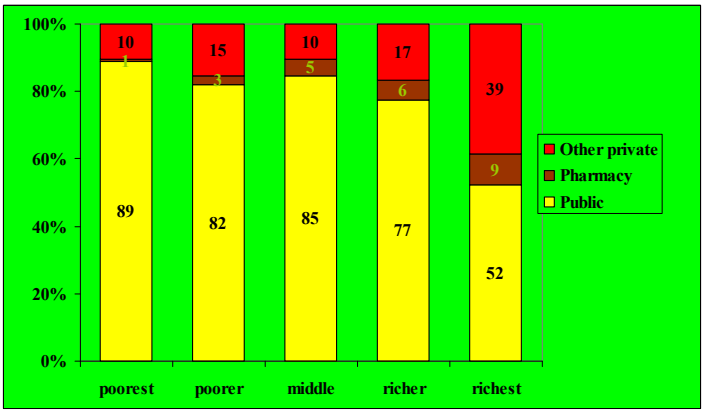


Figure 40. Source Mix for Injectables by Wealth Quintile, Bangladesh (2004)



Implications: As indicated earlier, the private sector should further expand its role in the injectable contraceptive market in Bangladesh. The potential for expansion of the private sector in the injectable contraceptive market is enormous. Expansion of the private sector would release the public-sector resources that are currently diverted to injectable users in the richest quintile.

14.2 The oral pill market in Bangladesh is well segmented.

Only the public-sector oral pill users from the wealthiest quintile are switching to the private sector (analysis not shown)—resulting in the increase of the efficiency of the public-private partnership in the oral pill market of Bangladesh. The pill users from the wealthier quintiles are more likely to use SMC or private-sector pills than those in the poorer quintiles, while the opposite is true for the private sector (figure 41). About 25 percent of the oral pill users from the poorest quintile use SMC oral pills; this gradually increases to 53 percent for the richest quintile, while 74 percent of the oral pill users from the poorest quintile use public-sector oral pills and this gradually decreases to 37 percent for the richest quintile. Still, the richest quintile utilizes 13 percent of the public-sector oral pills, and this quintile could be the target for SMC or other private sources (figure 42).

Figure 41. Source Mix for Oral Pill Users by Wealth Quintile, Bangladesh (2004)

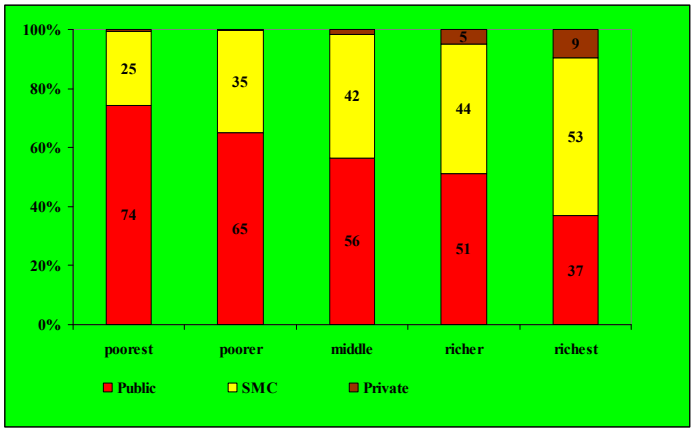
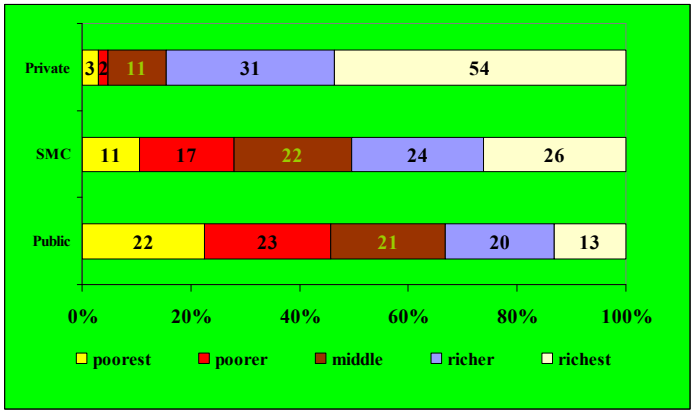


Figure 42. Wealth Profile of Oral Pill Users by Source, Bangladesh (2004)



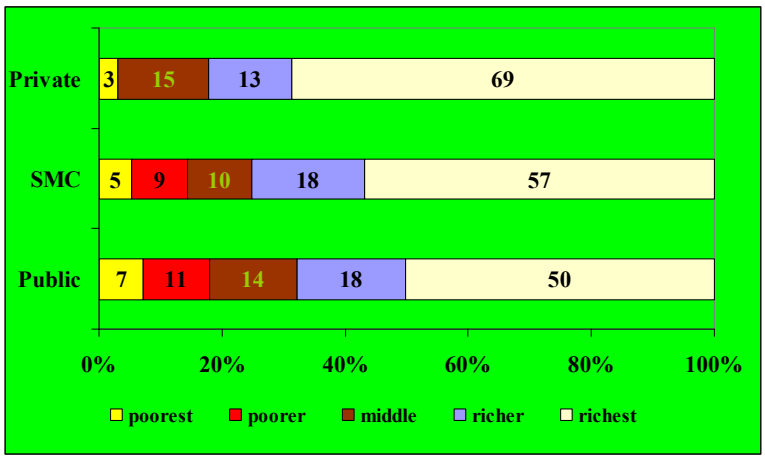
Implications: There is still room for the private sector to expand its services among the contraceptive users from the richest quintile.

14.3 The majority of the public-sector condom users are from the richest quintile.

The BDHS 2004 indicates that condom use is associated with wealth. About 11 percent of the currently married women in the reproductive age from the richest quintile use condoms, and the number decreases for

women in the poorer quintile; only 1 percent of the married women from the poorest quintile report using condoms as a contraceptive method. As indicated earlier, the source for condoms for users from all the five wealth quintiles is mainly SMC. Nevertheless, among the public-sector condom users, 50 percent are from the richest quintile (figure 43). The issue regarding low male friendliness of the public-sector services, as discussed earlier, may be associated with low public-sector condom use, even among the poor.

Figure 43. Wealth Profile of the Condom Users by Source, Bangladesh (2004)

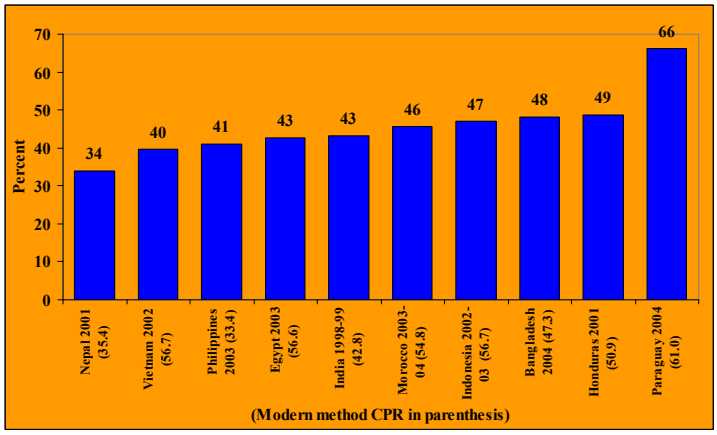


Implications: Because couples from mostly the richest quintile use condoms, it is not very efficient for the public sector to provide condoms to this group. The public sector should revaluate its strategy for providing condoms.

15. The effectiveness of the public sector of Bangladesh in serving the poor is comparable to the effectiveness of the public sector of other countries that have successful family planning programs.

The percentage of the public sector contraceptives used by the poorest two quintiles of currently married women of reproductive age is used as an indicator of the effectiveness of the public sector family planning programs in serving the poor. A higher percentage of the public sector supplies going to the poor, therefore, would be considered more efficient. Figure 44 indicates that, currently, about 48 percent of the public sector family planning commodities are utilized by the poorest two quintiles in Bangladesh, which is comparable to the efficiency of the public sectors providing contraceptives to the poor in Vietnam (40 percent), Indonesia (47 percent), Egypt (43 percent), Morocco (46 percent), and Honduras (49 percent). In Paraguay, the percentage of the public sector contraceptives going to the poorest two quintiles is the highest (66 percent), indicating that appropriate strategies may further increase the efficiency of the public sector in Bangladesh.

Figure 44. Share of Public Contraceptives Used by the Poorest Two Quintiles in Selected Countries

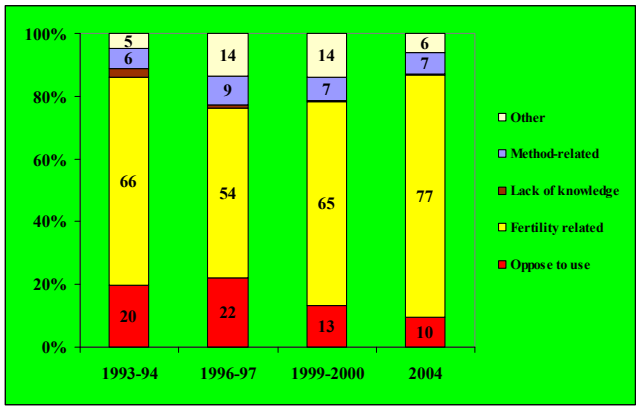


Implications: The contraceptive market in Bangladesh could be even more efficient. The private sector should be further encouraged to reach out to the wealthier clients so that scarce public sector resources can be diverted to the poor and the rural areas.

16. Opposition to family planning is still a cause for contraceptive nonuse in Bangladesh.

The major reason given (77 percent) for not intending to use contraceptives in the future among contraceptive nonusers is fertility related; nonusers include women who are not having frequent sex, are infecund, or who want more children. The next major reason given for future nonuse is opposition to family planning.[12] However, over the past decade, the percentage opposed to family planning among contraceptive nonusers has declined by one-half, from 20 percent in 1994 to 10 percent in 2004 (figure 45).

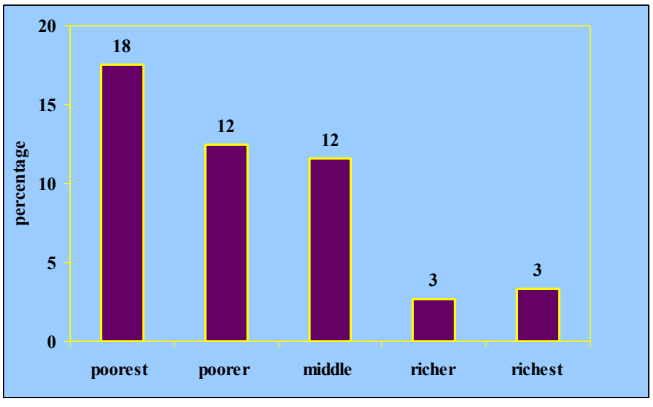
Figure 45. Change over Time is the Reason for Not Intending to Use Contraceptives in the Future, Bangladesh (1994–2004)



The opposition to family planning is comparatively higher among the poor than among the rich (see figure 46); it is also higher among women from rural areas than among those from urban areas (see figure 47); and as indicated earlier, it is higher among women from Chittagong and Sylhet Divisions than among the other four divisions. The market segments that are associated with opposition to family planning are also associated with contraceptive nonuse and unmet need. Opposition to family planning is still a major cause of contraceptive nonuse in Bangladesh.

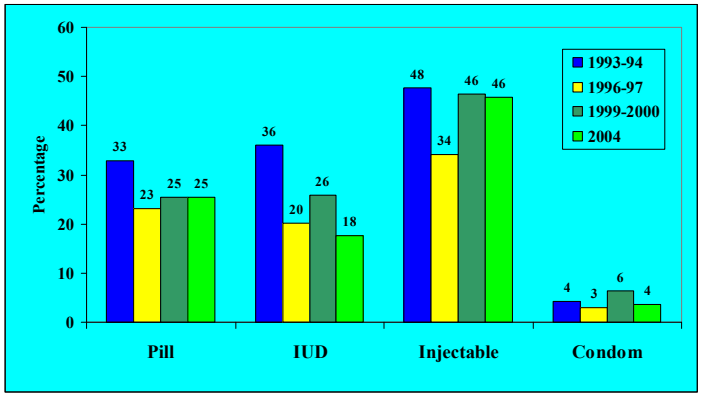
Implications: The national family planning program had previously involved religious leaders to neutralize opposition to family planning in the country. The strategy for involving religious leaders for promoting family planning should be revisited.

Figure 46. Percentage of Contraceptive Nonusers Reporting Opposition to Family Planning as a Reason for Not Intending to Use Contraceptives in the Future, by Wealth Quintile, Bangladesh (2004)



[12] Includes respondent or husband opposed to family planning as well as religious opposition.

Figure 47. Trend in Any Problem Reported with the Current Method, Bangladesh (1994–2004)



17. The family planning service delivery is improving.

Improvement in the delivery of family planning services, such as better counseling, is expected to result in (a) lower reporting of any problem with the current method and (b) increase in the duration of using the current method. Between 1994 and 2004, *any problem reported with the current method* declined for pill and IUD (see figure 48). Correspondingly, the reported duration of current method use, mainly pill, IUD, and injectable, has been gradually increasing over the same period (see figure 49), indicating that the service delivery of the national family planning program has been improving.

Figure 48. Trend in the Median Duration (in months) of Pill, IUD, and Injectable Use, Bangladesh (1994–2004)

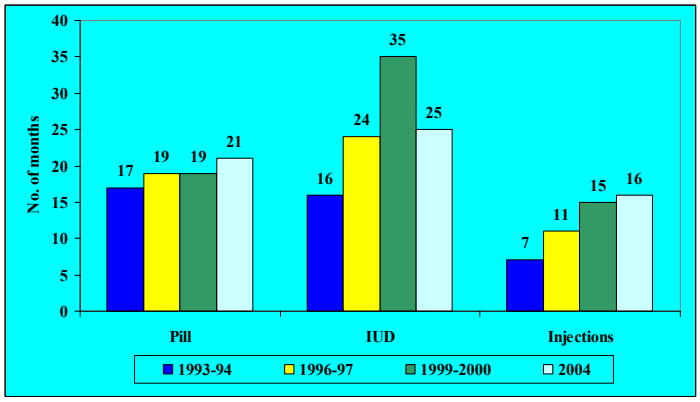
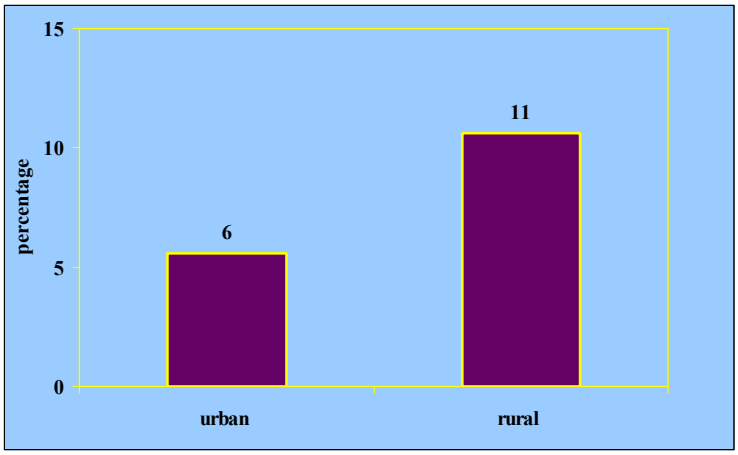


Figure 49. Percentage of Contraceptive Nonusers Reporting Opposition to Family Planning as a Reason for Not Intending to Use Contraceptives in the Future, by Place of Residence, Bangladesh (2004)



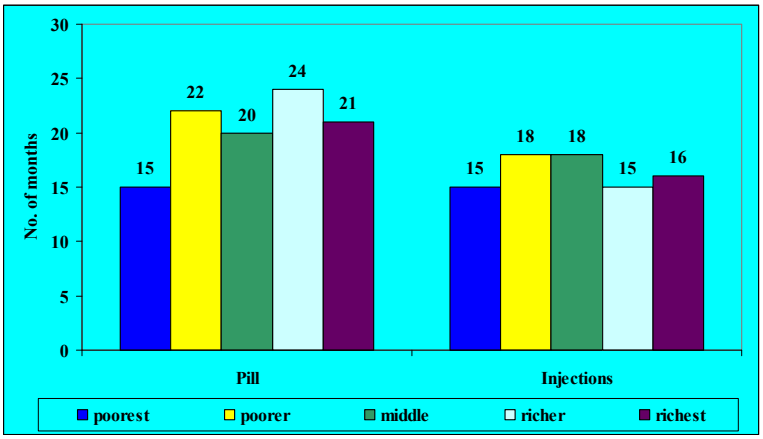
Implications: Findings are contradictory to the BDHS reports on contraceptive discontinuation rates, which indicate that it has remained unchanged over the past decade. Validity of the discontinuation rate from the DHS to measure program performance is questionable because it is based on a five-year recall period.

18. However, there is a disparity in the delivery of family planning services between the rich and the poor.

Disparity in the family planning services among the rich and poor is indicated by comparatively high responses to *any problem reported with the current method* and comparatively low duration of current method use. Any problem reported with current method among the poorest quintile was 38 percent, while it was only 20 percent among the richest quintile (figure 50). Correspondingly, the median duration of pill use among the poorest quintile is lower than those from the other four quintiles (see figure 51). The relatively lower access to family planning services among women from the poorest quintile is another barrier in reducing the disparity in contraceptive use between the rich and the poor and adversely affects contraceptive security in Bangladesh.

Figure 50. Any Problem Reported with Current Method, by Wealth, All Methods Pooled, Bangladesh (2004)

Figure 51. Median Duration of Pill and Injectable Use by Wealth, Bangladesh (2004)

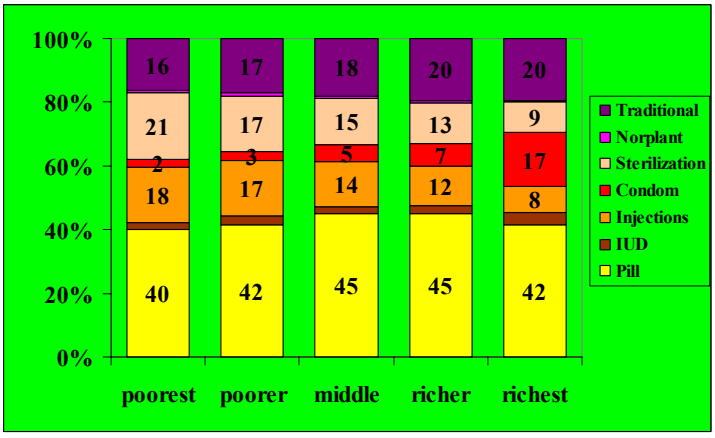


Implications: Further investigation is required to identify the causes of disparity in family planning service delivery between the rich and the poor.

19. The reason for comparatively high condom use among the rich and in urban areas is not clear.

It is interesting to note from figure 52 that the method mix varies by wealth; injectables and sterilization are relatively more popular among family planning users in the poorer four quintiles (18 percent and 11 percent, respectively) compared to those in the richest (11 percent and 7 percent, respectively); condoms are more popular among the richest quintile (18 percent) compared to the others (4 percent). Although the relatively higher popularity of sterilization and injectables among the poor family planning users can be explained by economic reasons, the reason for the comparatively higher condom use among the rich is not clear. The minimal price charged for public sector condoms is not likely to cause a barrier to their access. Nevertheless, another explanation of the low use among relatively poor couples could be the fact that males, who are the major clients for condoms, do not feel comfortable obtaining supplies from the public sector service delivery points, which are oriented toward serving women—while the private sector sources may not be affordable for them.

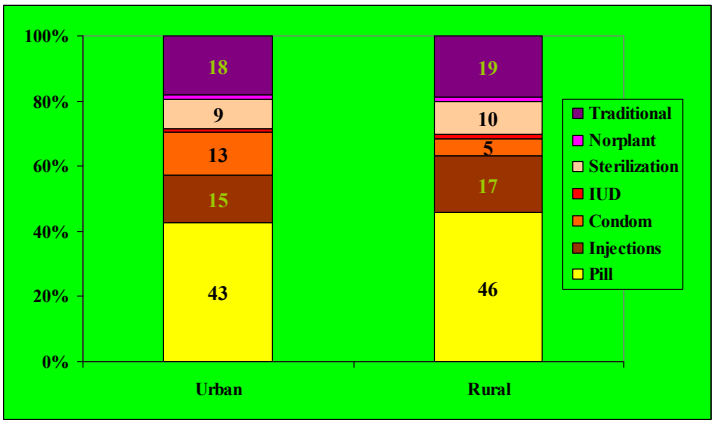
Figure 52. Method Mix by Wealth Quintile, Bangladesh (2004)



The noteworthy variation of method mix by place of residence (in figure 53) indicates that condom use is more popular among contraceptive users from the urban areas (13 percent) compared to those in rural areas (5 percent). Popularity of condom use among family planning users in urban areas can be partly explained by the higher percentage of married women in urban areas from the richest quintile, who are more likely to use condoms (see table 1). Nevertheless, urban-rural differentials in condom use remain even among the women

from the richest quintile who are using contraceptives, i.e., urban rich couples are more likely to choose condoms than their rural counterparts (analysis not shown), indicating that, in addition to wealth, there are other factors in urban areas, such as easier access to condoms, that are also the reasons for the observed urban-rural differentials in condom use.

Figure 53. Method Mix by Place of Residence, Bangladesh (2004)



Implications: The reason for the popularity of condoms as a method of contraception among the rich and urban family planning users is not well understood. However, it is encouraging to see relatively higher male participation in family planning among these groups. Further investigation should be carried out to see if there are any barriers for males to access family planning services from the public sector.

SUMMARY OF FINDINGS AND IMPLICATIONS

Findings	Implications
1. The public sector clients, i.e., the poor, are less likely to be educated, mainly reside in rural areas, and are comparatively younger.	Ideally, the public sector should invest the major portion of its resources in rural areas to meet the needs of clients less able to access contraceptives from the private sector.
2. Disparity in the modern method CPR between the rich and the poor is decreasing, indicating that the national family planning program is moving toward achieving contraceptive security.	The public sector has done a good job in decreasing CPR disparity. Bangladesh has one of the lowest CPR disparity among countries analyzed. However, Bangladesh will not reach program objectives unless this disparity is reduced further.
3. Although the urban-rural disparity in the modern method CPR is decreasing, the modern method CPR in the urban areas has remained stagnant over the past eight years; this calls for innovative strategies to address the family planning needs of the rapidly growing urban population.	The national family planning program has done well in keeping up with the family planning needs of the growing urban population. However, the stagnation of the modern method CPR is an impediment to achieving the national fertility goal. Innovative strategies are needed to increase the modern method CPR among the rapidly growing urban population. Because NGOs are more flexible in implementing innovative strategies, one of the approaches could be to encourage greater participation of the NGOs in the urban area. Stronger public-private partnership will also be helpful.
4. In addition to lower education and lower household wealth, other factors are associated with rural areas, such as access to family planning, which may further explain the urban-rural disparity in modern method CPR.	Most likely, access issues associated with rural areas are still one of the major causes of lower contraceptive use. With education and other developmental activities, more resources should be invested in rural areas to improve the demand for and access to family planning services.
5. There is a huge disparity in the modern method CPR among the six divisions of Bangladesh—mainly due to issues of access, among others.	The strategy of the national family planning program should reflect regional differences. For Khulna Division, the underserved population must be identified and served; for Sylhet Division, solving access issues should be the main objective; while for Barisal Division, the public sector should review its current strategy and identify what changes over the past four years may have lowered the modern method CPR. Better market segmentation to improve the efficiency of the public–private partnership could address the plateau of the modern method CPR in Khulna Division; while Sylhet Division needs innovative techniques to increase access to health and family planning services in hard-to-reach areas. Lack of access to health and family planning services in Sylhet Division has been well known; it

Findings	Implications
	indicates an urgent need to modify the current family planning and service delivery strategy. One approach could be to promote NGOs that offer innovative strategies. However, to develop the appropriate strategy, a strong public-private partnership will be required. Because of the high opposition to family planning in Sylhet and Chittagong Divisions, due mainly to religious reasons, the religious leader program could be revisited to desensitize opposition to family planning, especially for these two divisions.
6. About 8.7 million potential future contraceptive users will join the current pool of about 13.6 million users.	The public sector faces the prospect of meeting the needs of as many as 5 million new users from the bottom three quintiles. This will require a substantial increase in public sector provision. To facilitate and to encourage richer clients to use the private sector will require an even stronger public-private partnership in the near future.
7. The shifting method mix from long-term and permanent methods to short-term methods observed in the 1999–2000 BDHS is still continuing and threatens the contraceptive security of the country; however, the declining trend in the long-term method use is expected to change.	The decline in the number of women still of reproductive age who have had sterilizations is a consequence of the reduction in procedures from the 600,000 per annum conducted in the early years of Bangladesh's national family planning program. Recent efforts to revitalize the public delivery of long term and permanent methods will help offset this trend. Much more, however, is needed if sterilization is to contribute even more to CPR.
8. Only 17 percent of the 6.1 million modern method users with three or more children (most do not want any more children) have currently adopted long-term or permanent methods, leaving a large number of potential clients for longer-term methods.	The public and private sector need to do far more in reaching out to couples who do not want any more children to offer long-term and permanent methods.
9. The private sector is playing an increasingly significant role in the contraceptive market in Bangladesh.	A growing public-private partnership in the Bangladesh family planning market is very encouraging for the contraceptive security in the country. The private sector is playing a major role in sharing the burden of serving the rapidly growing family planning clients in Bangladesh. The future challenge for both the public and private sector is to serve about 5.4 million and 3.3 million more potential clients, respectively.
9.1. The private sector has emerged as a potential supplier for injectables.	The increasing trend of the private sector in the injectable market in Bangladesh is encouraging. The private sector should develop strategies to further increase its role in the injectable contraceptive market.
9.2. The SMC has emerged as one of the major suppliers for the oral pill market in Bangladesh.	Private sector participation in the oral pill market has immensely reduced the burden of the private sector to meet the growing demand for oral pills. Continuation of the current strategy to increase the market supply for pills by the private sector will be very useful for the contraceptive security of the country in the long run.
9.3. SMC is the major source for condoms	Willingness to pay for condoms, even among the poor, is encouraging. However, the

Findings	Implications
among users from all the five wealth quintiles.	possibility of the existence of barriers for males to access public sector condoms should be scrutinized.
9.4. The private sector has a huge opportunity to increase its role in providing longer-term contraceptives.	A greater private sector role in providing long-term contraceptive methods would most likely initiate long-term method adoption by the rich—reversing the low popularity of long-term methods among the rich women using contraceptives in Bangladesh currently observed. As indicated earlier, the potential market for long-term methods in Bangladesh is enormous (about 5.6 million), one-fifth of which is from the richest quintile, giving the private sector the opportunity to further explore the long-term contraceptive market.
10. The role of the private sector in serving the rapidly growing urban population has been impressive.	The private sector has responded well to the rapidly growing contraceptive needs of the urban population. However, more needs to be done to overcome the stagnation of the modern method CPR in the urban area. As discussed earlier, public-private partnerships should create innovative strategies for the NGOs to serve the underserved and the vulnerable urban population.
11. The private sector is increasingly reaching out to the younger family planning clients.	The private sector is responding to the needs of the younger age group, which mainly uses short-term methods. Although a public-private competition in the contraceptive market is not desirable, nevertheless, there is an immediate need for the public sector to formulate youth-friendly strategies to reach the younger age group who are also poor.
11.1. About 15 percent of the SMC oral pill users are 10- to 18-year-old married women.	The public sector needs to revisit its strategy for reaching out to young couples, including newlyweds.
11.2. More than 11 percent of the private sector condom users are 10- to 18-year-old couples.	The need for the public sector to provide friendly services for young couples or newlyweds, as indicated earlier, should also incorporate outreach to males to ensure public sector condom use by young couples, especially for those who are poor.
12. Unmet need for birth spacing is high among newlyweds compared with other married women in the same age group.	Although reaching out to young couples to meet their unmet need for family planning should remain a priority for the national family planning program. it would not be sufficient to meet all of the family planning needs among newlyweds. IEC activities should be reviewed to see if (1) young couples are adequately targeted, (2) a special focus on newlyweds is adequately incorporated, and (3) strategies are in place to promote birth spacing among the newlyweds (to change the norm of bearing a child soon after marriage). In addition, as indicated earlier, the public sector should assess the youth and newlywed friendliness of its services while reviewing its IEC strategy.
13. The rapidly expanding private sector is also serving the poor.	Is the expansion of the private sector creating a burden on the poor? It is more likely that the poor are increasingly willing to pay for contraceptives. Because some of the SMC contraceptives are highly subsidized, it is not surprising that the poor are able to pay. Subsidized SMC contraceptives are playing an increasing role in achieving contraceptive security in Bangladesh.

Findings	Implications
14. The effectiveness of the public-private partnership in the contraceptive market of Bangladesh is improving.	The public sector is increasingly reaching out to the poor; the percentage of the public sector contraceptives that goes to the poorest two quintiles has increased from 41 percent in 1994 to 47 percent in 2000, and gained another percentage point between 2000 and 2004. The public sector targeting of the poor is even better in rural areas; only 7 percent of the public sector contraceptives are going to rural women in the richest quintile. However, public sector resources can still be diverted from the richest quintile to the poorer quintiles. The richest quintile still represents 35 percent of the public sector clients in the urban area.
14.1. The injectable contraceptive market in Bangladesh is still not well segmented.	As indicated earlier, the private sector should further expand its role in the injectable contraceptive market in Bangladesh. The potential for expansion of the private sector in the injectable contraceptive market is enormous. Expansion of the private sector would release the public sector resources currently being diverted to injectable users in the richest quintile.
14.2. The oral pill market in Bangladesh is well segmented.	The private sector can still expand its services among the contraceptive users from richest quintile.
14.3. The majority of the public sector condom users are from the richest quintile.	Because couples from mostly the richest quintile use condoms, it is not very efficient for the public sector to provide them. The public sector should revaluate its strategy for providing condoms.
15. The effectiveness of the public sector of Bangladesh in serving the poor is comparable to the effectiveness of the public sector of other countries that have successful family planning programs.	The contraceptive market in Bangladesh could become even more efficient. The private sector should reach out further to the wealthier clients in order to release scarce public sector resources that could be diverted to the poor and the rural areas.
16. Opposition to family planning is still a cause for contraceptive nonuse in Bangladesh.	The national family planning program had previously involved religious leaders to neutralize opposition to family planning in the country. The strategy for involving religious leaders for promoting family planning should be revisited.
17. The family planning service delivery is improving.	Findings are contradictory to the BDHS reports on contraceptive discontinuation rates, which indicate that the rate has remained unchanged over the past decade. Validity of the discontinuation rate from the DHS to measure program performance is questionable because it is based on a five-year recall period.
18. However, there is a disparity in the delivery of family planning services between the rich and the poor.	Further investigation is required to identify the causes of disparity in family planning service delivery between the rich and the poor.
19. The reason for comparatively high condom use among the rich and in urban areas is not clear.	The popularity of condoms as a method of contraception among the rich and urban family planning users is not well understood. However, it is encouraging to see relatively higher male participation in family planning among these groups. Further investigation should be carried out to determine if there are any barriers for males to access family planning services from the public sector.

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