

## The Matlab Project: Family Planning Success in Bangladesh

**A**N experimental project in Matlab, Bangladesh, provides solid evidence that family planning programs can produce lasting increases in the use of modern contraceptives and achieve reductions in fertility, even in a traditional rural society. The results of the Matlab Project suggest that economic and social development is not a prerequisite for fertility reduction, if contraceptive services can be introduced and sustained effectively in a culturally appropriate manner.

For three decades, Bangladesh has tried to reduce

rapid population growth through policies and programs that provide contraceptive services. National levels of contraceptive prevalence have risen somewhat, but results have been far short of the official goals. The Matlab Project, in contrast, has been notably successful. It is, therefore, a model with potentially important implications for national family planning policy. Although the Matlab Project is specific to the Bangladesh setting, it also offers an example of a successful family planning effort from which policymakers in other countries can learn.

UN Photo



*"Since the study was launched, all currently married and fecund women have been visited fortnightly, consulted about their contraceptive needs, and encouraged to adopt family planning methods. Encounters include educational themes and motivational messages, but most important, they are oriented toward service delivery."*

## The Setting

**M**ATLAB is a field research station of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). It is located in a rural subdistrict 35 miles south of Dhaka, in an isolated area crisscrossed by rivers and canals. Clusters of households or hamlets are separated from each other by river branches, and the entire area is inaccessible except by river transport. Matlab Bazaar is the only small town of significance. Subsistence agriculture and fishing dominate the economy.

Matlab is little different from Bangladesh as a whole. With a current population of 110 million, Bangladesh is the most densely settled country in the world. It ranks fifth from the bottom of the World Bank's listing of countries by per capita gross national product in 1986. Nearly nine out of ten people live in rural areas, and three-fourths of the people work in agriculture. The population is growing by more than 2 percent annually.

## The Matlab Program

**I**N 1977, the ICDDR,B introduced an experimental maternal and child health and family planning program to test whether an effective service delivery system can induce and sustain fertility decline in such a setting. Since 1977, the Matlab Family Planning and Health Services Project (FPHSP) has been providing special family planning services to families in 70 villages, and the changes in contraceptive use, fertility, and other indicators have been carefully monitored. The results are systematically compared with those obtained from a set of 79 neighboring villages, where only the regular government services are provided.

At the outset, the two sets of villages were comparable in their social, economic, and demographic characteristics. Only in the family planning and health services offered did they differ. The most important difference between the government services and those provided by the experimental project was an intensive effort to reach mothers and children through regular home visits backed up by clinical services.

The FPHSP design grew out of an earlier, less-successful effort to deliver family planning services in Matlab. In this earlier project, largely illiterate and elderly female workers distributed pills and condoms to women in their homes. Few of these workers had practiced contraception themselves, they lacked credibility, and most were of low social status. Although the project resulted in an initial increase in contraceptive use, after the first year contraceptive prevalence

dropped to previous levels. The project's initial success, however, suggested latent demand for family planning.

FPHSP operations learned from the experience of the earlier project. Literate, young married village workers were recruited, most of whom were members of influential families in the villages in which they were to work. The workers received six weeks of intensive training in contraception, field visit methods, and maternal and child health. Unlike the earlier attempt, this project stressed the availability of a wide range of contraceptive options, regular visits to all women, and counseling and support from the village workers. The project provided for both technical and administrative supervision of the workers, with regular staff meetings, and good record keeping. An information system was carefully designed to permit evaluation of the project's effectiveness.

Writing recently in *Studies in Family Planning*, researchers James Phillips, Ruth Simmons, Michael Koenig, and J. Chakraborty summarized the project's successful methods: "Since the study was launched, all currently married and fecund women have been visited fortnightly, consulted about their contraceptive needs, and encouraged to adopt family planning methods. These consultations are conducted by young married women who are full-time employees of the project and are residents of the villages they serve. Encounters include educational themes and motivational messages, but most important, they are oriented toward service delivery."

Women who are interested in adopting a family planning method are provided a choice of pills, condoms, foam tablets, or the injectable contraceptive DMPA. Women who express interest in IUD services are encouraged to visit a nearby clinic,



*The Extension Project provides evidence that national programs can absorb many of the successful elements of pilot family planning programs.*

or to receive insertions at home by a trained paramedic. Sterilization services are available to wives or husbands who are willing to travel to a clinic in Matlab Bazaar.

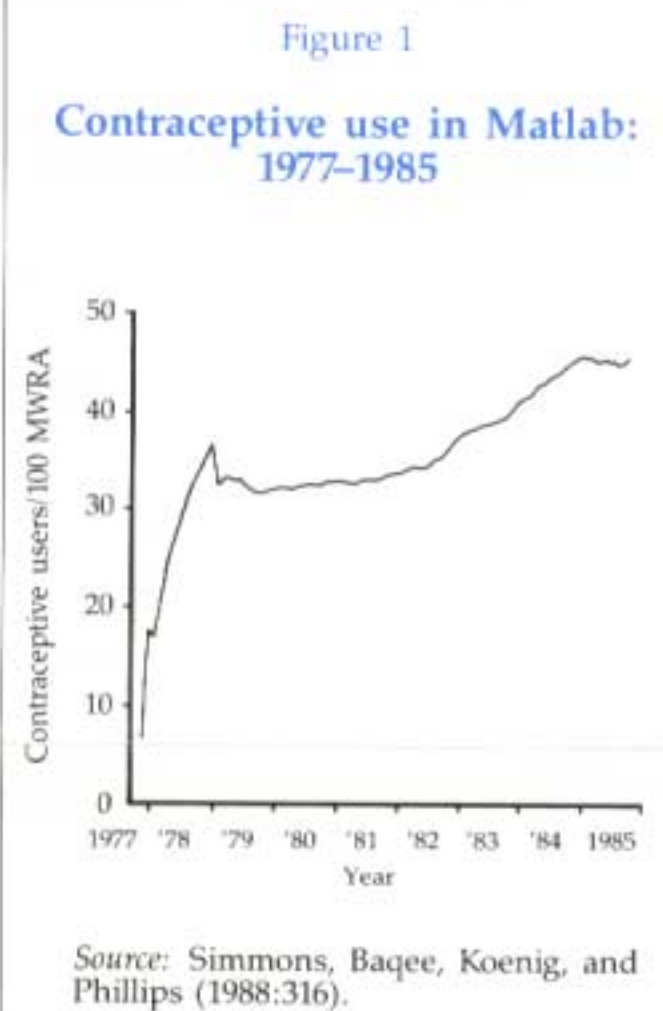
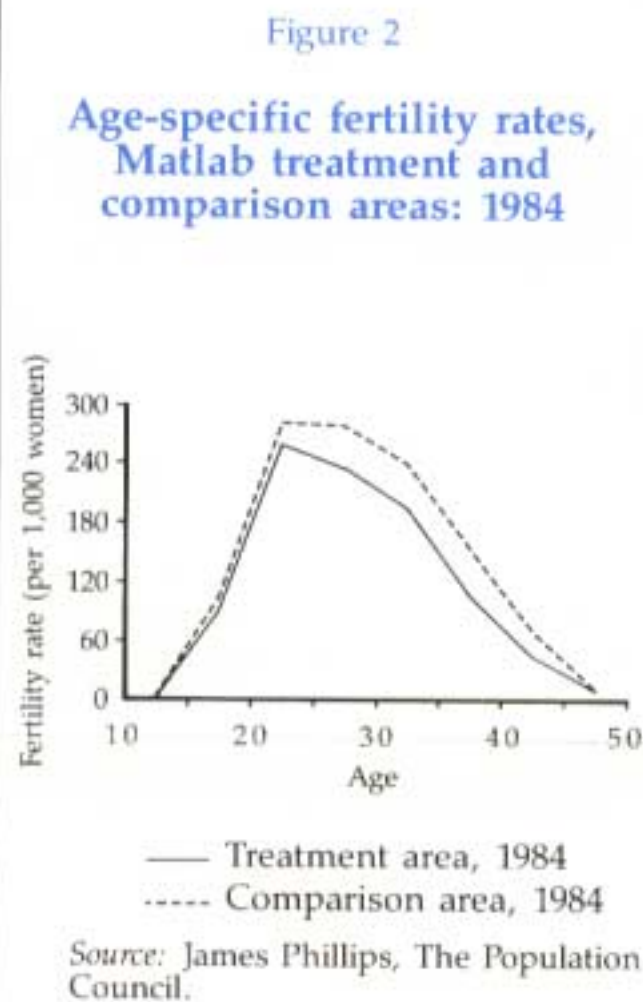
Nearby health centers treat childhood diseases, maternal health problems, or family planning-related side effects and complications. "Health services have been added incrementally over time and include immunization against tetanus and measles, safe birth delivery services, nutritional consultation, diarrheal disease treatment, and detection of maternal and child illness for referral to paramedical workers or Matlab physicians," the researchers report.

## Project Results

**T**HE Matlab Project has achieved great success. Before the project began, few women in the Matlab villages regulated their fertility, mortality was high, and there were no signs of change in these conditions. Almost immediately following the project's inception, contraceptive use rose and fertility declined impressively in the treatment area, while in the comparison villages there was very little change at all.

In the treatment area, the use of modern contraceptive methods rose from under 7 percent to 20 percent of married women of reproductive age (MWRA) within three months and to over 30 percent after 18 months. Following a plateau lasting several years, contraceptive prevalence rose again, reaching 45 percent in 1985. Many of the Matlab villages now have prevalence rates over 50 percent.

In contrast, contraceptive prevalence in the comparison areas remained low throughout the course of the project, comparable to the national levels. In 1984, the time of the most recent survey in the com-



parison villages, only about 17 percent of women were using contraception.

In the treatment area, largely as a result of the rise in contraceptive use, fertility dropped by 25 percent within two years, and has sustained the lower level ever since. In the comparison area there was no such decline. The age-specific fertility rates in the treatment area now are those of a society making the transition from high to low fertility, while those in the comparison area remain those of a society that has yet to begin the transition.

The Matlab Project has also helped to reduce maternal mortality. Women who become pregnant have the same mortality risk as before the introduction of the program, but because fewer women become pregnant, overall mortality is lower. The program appears to be associated with lower infant and child mortality as well, although the links are not yet entirely clear.

Another important indirect effect of the project has been to improve women's status in the project area. As a result of their work roles, the female field workers of the Matlab Project became influential and respected as professionals in the community, despite the strong cultural bias against women having any status outside of family roles. This acceptance was earned with difficulty, including confrontations with hostile villagers and occasional personal threats, but now seems well established. The workers' acceptance has led to improvements in the status of other community women as well.

## Policy Implications

**T**HE Matlab Project has demonstrated that even in the absence of economic development, in an environment that is unfavorable to reproductive change, a

well-planned, well-organized program that delivers integrated maternal and child health and family planning services in culturally appropriate ways can reduce fertility.

Unless the lessons learned from experiments like Matlab can be extended to national family planning programs, however, simply demonstrating success is of little value. Moreover, because of the special resources applied to the Matlab experiment, its very success risks leaving the impression that extra resources are necessary for success, and that the experimental conditions cannot be replicated in the national program, where resources are scarce. "Findings must identify not only what ought to be done differently, but also how bureaucratic change can be induced and sustained," according to Phillips.

To determine if it would be possible to overcome organizational and administrative constraints to the introduction of an effective family planning service delivery program at the national level in Bangladesh, the ICDDR,B launched the Extension Project in 1983. The purpose of the Extension Project is to introduce into the national program the key aspects of the successful Matlab approach: scheduled household visits for family planning and maternal and child health services, systematic follow-up, and regular meetings for problem solving, supervision, and support.

These elements have been introduced on a trial basis in selected areas of Bangladesh. As they prove successful, they are systematically introduced into the national program. In the process of transferring

these elements, some of the Matlab techniques are modified. "What has emerged is an operational model that is neither the Matlab system nor the ministry's system, but something new and unique to project areas," Phillips reports.

The Extension Project provides evidence that national programs can absorb many of the successful elements of pilot family planning programs. Policymakers in other nations should consider the approach of first building a successful model family planning service delivery system on a small scale, then applying the same methods on a broader scale by incorporating them into the government or national program.

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Simmons, Ruth, Laila Baqee, Michael A. Koenig, and James F. Phillips (1988) Beyond Supply: The Importance of Female Family Planning Workers in Rural Bangladesh. *Studies in Family Planning*, Volume 19, Number 1.

Simmons, Ruth, Rezina Mita, and Michael A. Koenig (1988) The Effect of the Matlab Project on Women's Status. Paper prepared for the Rockefeller Foundation's Workshop on Women's Status and Fertility, Bellagio, Italy, June 6-10, 1988.

Koenig, Michael A., James F. Phillips, Ruth S. Simmons, and Mehrab Ali Khan (1987) Trends in Family Size Preferences and Contraceptive Use in Matlab, Bangladesh. *Studies in Family Planning*, Volume 18, Number 3.

James F. Phillips (1987) Translating Pilot Project Success into National Policy Development: Two Projects in Bangladesh. *Asia-Pacific Population Journal*, Volume 2, Number 4.

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