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**U.S. ASSISTANCE TO
THE FAMILY PLANNING AND POPULATION PROGRAM
IN BANGLADESH
1972 - 1980**

Report of a Program Evaluation
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I. EXECUTIVE SUMMARY

Problem and Overview. Bangladesh faces a demographic crisis of greater magnitude than nearly any other country today. It is one of the world's poorest yet most populous nations with 90 million people crowded into an area only the size of Wisconsin. Among this largely malnourished and illiterate population, 90 percent is rural, 50 percent of rural dwellers are landless, and landlessness is increasing. Demand for labor has risen by only 1.2 percent per annum in recent years while the population has been growing at 2.8 percent. Under Bangladesh's president Ziaur Rahman, and with the assistance of AID and other foreign donors, commitment to lowering fertility has been strong. Nevertheless, investments have as yet failed to have the desired impact in lowering the growth rate. Despite indications of desire of individual Bangladeshis to limit their family size, the government's family planning program has been relatively ineffective achieving a national rate of prevalence of contraceptive use of less than 13 percent. Yet, unless rapid population growth can be brought under control all other development efforts to benefit Bangladesh's very poor majority will have been in vain.

U.S. Assistance. Since 1972 U.S. population assistance to Bangladesh has totaled some \$48 million in the form of relief and rehabilitation funds, two bilateral projects, and intermediary projects centrally-funded by AID/Washington. The stated purpose of AID's bilateral project of FY 1973-75 was "to help the BDG (Bangladesh government) make available basic contraceptives to as many eligible couples as possible and to institutionalize family planning delivery services on a national basis." Its longer-range goal was expressed as "(1) to slow population growth by reducing fertility rates to replacement level with low birth and death rates in 30 years, or as soon thereafter as possible, and (2) to reduce the annual population growth rate from an estimated 3 percent to 2.8 percent over the (BDG's) five-year plan period ending June 1978." The stated purpose of the bilateral project of FY 1976-80 has been "to develop a functioning national institutional structure providing family planning services and population/family planning information and education on a continuing basis to the people of Bangladesh." This project had a less specific goal, namely, "to reduce the rate of natural population growth as a critical factor in social and economic development."

Purpose of the Present Evaluation. Despite several internal evaluations and evaluative studies focused on specific components of the program, no comprehensive, external evaluation had been undertaken as of 1980 when plans were being made for three additional years of AID support at a cost of about \$65 million. This evaluation was therefore scheduled with the following purposes: (1) to assess AID's performance to date in helping to reduce fertility in Bangladesh, (2) to make recommendations for improved effectiveness in proposed new family planning and population activities in Bangladesh, and (3) to make recommendations for improved effectiveness of AID family planning assistance elsewhere. The evaluation was timed so that its findings and recommendations would be available prior to the review and finalization of USAID/Dacca's new project paper.

AID Accomplishments. AID has been the principal donor of contraceptive supplies and of family planning training for Bangladeshis, which began under the first bilateral project and without which the BDG would not have been able to begin nationwide delivery of family planning services. At the same time, through its centrally-funded intermediary organizations, AID succeeded in launching an experimental community-based distribution project, research on the effectiveness of various contraceptives under Bangladeshi conditions, and a commercial contraceptive sales network that has made pills and condoms readily available throughout the country. Under the second project, AID has continued to be the major provider of contraceptive supplies while providing for the nationwide introduction of voluntary sterilization services and the launching of additional private-sector community-based distribution projects. Also during this time, USAID/Dacca initiated an operations research program and an innovative project to give Bangladesh's family planning field supervisors practical training in Indonesia.

Effectiveness. AID has been an effective supporter of the Bangladesh program even while it has been only partially successful in meeting its stated project objectives. A "national institutional structure providing family planning services and population/family planning information and education on a continuing basis" has been established, but it has yet to begin to function effectively. Fieldworkers are not well trained nor highly motivated. Organizational issues stemming from the latest attempt to integrate the family planning and health systems will have to be resolved and fieldworker training and supervision vastly improved before either AID's project goals or those of the BDG will be met. Numerous private voluntary organizations, several supported by AID, have proven much more effective although among smaller target populations. AID is praised by Bangladeshis and other donors for USAID/Dacca's competent and cooperative population officers, provision of contraceptives, medical kits, and participant training opportunities, and the ability to rapidly make available high-quality short-term consultants. USAID/Dacca and AID/Washington's Office of Population have played crucial complementary roles in providing this support. AID is faulted for providing only the Norinyl brand of oral contraceptives and for impeding Bangladesh's attempts to meet the active demand for menstrual regulation services which often serve as a means of introducing more effective contraception.

Major Recommendations for Immediate Consideration

1. The USAID/Dacca plan to revise its portfolio to give population planning first priority should be vigorously supported by AID/Washington.
2. In order to effectively implement the greatly expanded measures proposed for its new project, organizational and staffing changes should be made within USAID/Dacca. Ideally, an Office of Population Planning should be established headed by an assistant mission director. Alternatively, the present Population, Health, and Women's Division should become a Population Division and undertake only activities that directly support the mission priority on reducing population growth.
3. Conditions precedent or covenants for the project agreement for the proposed new project should include specification of minimal criteria for the BDG sterilization surveillance agreement. Additional conditions or covenants are also suggested.

BASIC PROGRAM IDENTIFICATION DATA

1. **Country:** Bangladesh
2. **Bilateral project titles:** "Bangladesh Population/Family Planning"
3. **Bilateral project numbers:** 388-11-580-0001 and 388-0001
4. **Program implementation:**
 - a. First project agreement: FY 73
 - b. Final obligation: Ongoing
 - c. Final input delivery: Ongoing
5. **U.S. contributions to program funding:**
 - a. A.I.D. bilateral funding: \$40.9 million (grants, FY 73-80)
 - b. Other funding: \$8 million (approximate)
(Relief and Rehabilitation funds plus AID/Washington centrally-funded intermediary organizations)
6. **Mode of implementation:**
 - a. Project Agreements between USAID/Dacca and Bangladesh Ministry of Health and Population Control;
 - b. Centrally-funded agreements between AID/Washington (Office of Population) and selected population intermediaries; and
 - c. Agreement between USAID/Dacca and Population Services International
7. **Responsible mission officials:**
 - a. Mission directors: Anthony Schwarzwaldler 1972-74, Joseph Toner 1974-79, and Frank Kimball 1979-present;
 - b. Responsible project officers: Michael Jordan 1972-77, Dallas Voran 1973-77, Charles Gurney 1977-present, and John Dumm 1977-present.
8. **Previous evaluations and reviews:**
 - a. Project Appraisal Report (PAR), June 27, 1975;
 - b. Project Appraisal Report (PAR), February 18, 1977;
 - c. "First Annual Joint BDG-USG Population/Family Planning Program Review, 17-18 February, 1977;" and
 - d. Project Evaluation Summary covering period 2/77 to 2/78.
9. **Host country exchange rates:**
 - a. Name of currency: Taka
 - b. Exchange rate at time of project: 15 taka = U.S. \$1.

Part II

CONCLUSIONS AND RECOMMENDATIONS

The major findings and conclusions of the present evaluation are summarized here, each followed immediately, where appropriate, by one or more recommendations that derive from the respective conclusion or "finding." In Part V below, sections with corresponding headings present details upon which these findings and conclusions are based.*

MAJOR CONCLUSIONS AND RECOMMENDATIONS

1. Impact of the Bangladesh Program.* Ultimately, a successful population program is one that produces a demographic impact (actual reduction in the population growth rate) leading thereafter to a socioeconomic impact (a better standard of living for the majority of the population) and a viable, self-sustaining economy. In Bangladesh, the population and family planning program has not yet begun to have this ultimate demographic impact. Prevalence of contraceptive use has increased, however, from approximately 8.3 percent of married couples of reproductive age in 1975-76 to about 12.66 percent by mid-1979, and there has been a slight decrease in the crude birth rate making for an estimated 2.4 million births averted during 1976-1980. Evidence suggests that the population and family planning program is one of the leading causes of this decline. Prevalence levels above 30 percent have been achieved by intensive community-based distribution projects, which demonstrates that much more can be accomplished with the right mix of inputs--supervision, training, community participation, and commodity support.

2. Political Commitment of the Bangladesh Government. The commitment of the government of Bangladesh to a policy of energetic fertility control is strong and unequivocal at the pinnacle of government with President Ziaur Rahman forthrightly taking the lead in setting the tone for policy and exhorting the bureaucracy and citizenry to reduce fertility. This commitment is

*Throughout this report "program," when used without further specification, means the total effort in Bangladesh to reduce fertility through both governmental and non-governmental promotion of family planning as well as "beyond family planning" developmental activities such as female income-generating projects or integrated rural development schemes. Where reference is to the government (i.e., national) program per se, this will be made explicit.

also pervasive within the Planning Commission where the need for unambiguous "population control" and ambitious targets to reduce fertility form a central part of the 1980-85 Five-Year Plan. Nevertheless, the well-articulated policy of the President has yet to be effectively acted on by the various parts of the bureaucracy charged with implementation.

Recommendation: USAID, the Embassy, and AID/Washington should continue to provide reinforcing support for senior policymakers in the Office of the President, the Planning Commission, and the Ministry of Health and Population Control in their efforts to maintain a strong fertility control policy and should strive to develop means to reward this commitment and especially its translation into action. In particular, USAID should indicate that it is prepared to offer technical assistance to the BDG in conceptualizing and implementing innovative measures in "beyond family planning."

3. Effectiveness of the BDG Program. The government program is still of limited effectiveness in promoting and delivering family planning services. In large part this is due to the general handicaps under which any national BDG program suffers: the grappling for a "right" path in the highly politicized environment of this nation only eight years old, over-centralized and administratively weak bureaucracies, the lack of a "serve-the-people" orientation among government workers, a weak physical infrastructure, traditional political patronage relationships, and a widespread fatalism among the peasantry expressed as the "will of Allah." In addition, the program has suffered from disruptions and staff disgruntlement through repeated reorganization. First it was a "vertical" program, then integrated with health, then "disintegrated," and now again reorganizing to become "integrated" once more. Despite this, it seems generally regarded as one of the most effective of all of the government's programs. A functioning national infrastructure providing family planning services and family planning information is now in place. What remains is to energize it.

4. Effectiveness of AID Support. While AID has not fully succeeded in meeting all the ambitious goals and purposes stated in its project papers, it has been effective in its provision of support. AID was the first donor to have a staff person working full-time on Bangladesh population problems (1972), to develop a major project in support of the national program (1973), and to supply contraceptives on a large scale (1973). AID is praised for having had competent Dacca-based population officers able to work effectively with both the Bangladeshis and other donor representatives. AID/Washington's Office of Population has also played an important role through its intermediaries and its reliable provision of contraceptives and medical supply kits as well as high-quality short-term

technical advisors. AID support to the BDG program will not succeed in producing a demographic impact, however, until the program's service delivery elements become more effective or unless AID is able to channel resources in ways least likely to be thwarted by the lethargy and bottlenecks of the government program.

5. AID Funded Intermediary and Private Organizations. Achievements in the private sector by AID-funded U.S. intermediary and private organizations have been impressive and of a scale probably unmatched in any other AID-assisted country. The presence and roles of the intermediaries are well-accepted by the government and the people they serve. Their enhancement of community participation is exemplary; their service, standard-setting, training, and ability to undertake innovative activities constitute an essential mix of actions highly complementary to government programs. Both USAID/Dacca and AID/Washington's Office of Population deserve high marks for their skillful and facilitative management of this important cluster of resources.

Recommendations: AID should continue to fund and guide private-sector organizations into areas that bolster the government program or where high prevalence rates (e.g. 25-40 percent) are likely to be achieved. All AID-funded organizations with community-based distribution programs should be required to adopt the "prevalence programming" tool (see below and also Appendix F) as a measure of performance and goal setting. Assuming it proves workable, this experience should demonstrate applicability of prevalence programming to the government program and hasten its wider adoption.

USAID and AID/Washington should again explore with the Syntex Corporation the development of special packaging for both the "Maya" and low-dose "Ovacon" oral contraceptives supplied by AID through the Social Marketing Project.

6. USAID-Proposed Project for FY 81-83. The evaluation team endorses the new Project Paper and its assistance strategy for the period, FY 1981-83. Successful implementation, however, will require greater commitment and effort by both USAID/Dacca and AID/W than comparable projects in more rapidly modernizing countries (e.g., Thailand and the Philippines).

Recommendations: The following concerns should be specifically addressed in the subsequent project agreement, either as covenants or as formal understandings within implementation letters:

- a. Minimal criteria for surveillance of voluntary sterilization activities including service standards and provisions to assure compliance;

b. Completion of an emergency contraceptive resupply action before the next monsoon;

c. That those NGOs/PVOs funded by USAID which service discrete geographic areas be required to implement the prevalence programming tool.

It is further suggested that USAID continue to tranche population funds on at least a year-by-year basis and do so specifically contingent upon successful implementation of the sterilization portion of the agreement; the mission should also consider tranching funds according to a more frequent (e.g., semi-annual) review schedule. As stated elsewhere, if the project is to be implemented with maximal effectiveness, it is essential that the population staff be expanded with the recruitment of a public health physician being first priority. Finally, AID/Washington should be prepared to support creative re-programming, by USAID/Dacca, of project funds to meet program needs and targets of opportunity that are not manifest at this time but that arise during the next three years.

OTHER CONCLUSIONS AND RECOMMENDATIONS

7. Population Growth and Fertility Reduction Goals. Virtually all development goals adopted by the BDG under President Zia are intentionally set perhaps unrealistically high, the belief being that this is necessary to energize people to bring about the progress that is realistically achievable. Thus, the government's ambitious population growth reduction goals, desirable as they may be, are almost certain to be unachievable. However, in part because they are perceived to be unrealistic, service delivery staff tend to ignore them. Already field staff do not appear to take very seriously targets that have been assigned them. To the extent that actual economic planning and investment decisions are based on these unrealistic assumptions and projections of population change, serious misallocations of resources could result and the entire development planning mechanism could be distorted, proven faulty and, over time, lose credibility.

Recommendation: USAID, in consort with other principal donors (especially the World Bank and the UNFPA) should consider once again engaging in a dialogue with the BDG at appropriate senior levels of the Planning Commission, the Ministry of Health and Population Control, and the Office of the President to urge an overhaul and revision of growth rate goals, targets for program achievement, and future population size projections.

8. Target-Setting and Program Performance Management. Much confusion exists among field personnel about how to distinguish

between "cumulative new acceptors" and "current users" (or prevalence). This contributes to a major shortcoming of the national program namely that inadequate attention is given to increasing the numbers of actual contraceptive users. Too often the recruitment of new acceptors assumes nearly exclusive priority while followup actions are neglected. Related to this is the serious and almost universal underestimation at all field levels of current population size and the present number of eligible couples. Typically, program managers are relying for both on 1974 census figures, which understate both population size and the number of eligible couples by approximately 21 percent.

Recommendations:

- a. National goals for reduced growth rates (at all organizational levels) need to be translated into goals for increasing the prevalence of contraceptive use. USAID/Dacca should consistently seek means to have this come about.
- b. Management and field staff at all levels need to be trained to use prevalence as a measure of program performance. USAID could initiate this at once, for example, by including instruction about prevalence concepts into the Indonesian training program for Bangladesh field supervisors. (The Western Consortium group contracted by UNFPA for fieldworker training could also be a primary technical assistance and field training resource for this action.)
- c. Estimates of population size and eligible couples must be updated from 1974 figures so that all levels of the service delivery systems are equipped with current target numbers. (The suggestion that this revision be delayed until the 1981 census results are available should be rejected because these results will not be in hand until at least 1982 by which time the currently used data will be eight years out of date.) Eligible couple registers should also be updated in tandem with this exercise, but only after field staff have been given new eligible couple estimates and trained in prevalence programming. The preparation of new estimates of population size and estimates of eligible couples could be quickly accomplished with electronic hand or desk calculators at the central level and distributed to the field.

9. Logistics. Commodity management continues to receive inadequate government attention at all levels. The position of Deputy Director for procurement in the Ministry of Health and Population Control has been vacant for more than 12 months and experienced central staff are lacking. Supplies at district and thana (sub-district) levels are typically less than recommended -- often less than one month's supply -- and funds

frequently are unavailable for moving stocks from district warehouses to thana storerooms. Meanwhile, the three central warehouses periodically are filled beyond capacity seriously constraining commodity movement operations.

Recommendation: An emergency resupply action needs to be carried out nationwide during the next three months (before the six-month monsoon season begins), as was agreed to by the Secretary for Population Control and Family Planning in November, 1980. This should bring district and thana supply levels up to standard (3 months supply at each). At the same time, supply management forms should again be distributed, field supervisors ("TFPOs") and store-keepers again instructed in how to maintain adequate stock levels, and "first in, first out" procedures reinforced. The warehouse situation also immediately requires remedy. The Chittagong warehouse is now so full that withdrawal of older stocks is impossible. If one third or so of the present stock can be moved out during the next two or three months, then additional warehouse space would not be required. The warehouse staff should also be quickly brought to full strength.

10. Inadequacy of Training and Supervision

a. Paramedics. "Family welfare visitors" (FWVs)--clinic-based female MCH paramedics--are the major clinical support personnel in the sterilization program and are also responsible for IUD insertion. (There are now 1,500 FWVs who have completed an 18-month course following matriculation, the equivalent of 10th grade.) While they have considerable factual knowledge, they receive so little hands-on clinical experience during their training that many are unable to do the tasks specified in their job descriptions.

Recommendation: USAID should monitor the planned FWV re-training for its prompt initiation, practical control, clinical experience under supervision, and certification of actual skills--as distinct from knowledge--at conclusion; at a minimum this necessitates that USAID devote special attention to the support and monitoring of training that is envisaged as part of the CARE component of its proposed new project. So that more extensive actual clinical experience can be inserted into FWV training, it is suggested that their training include internships in both ob-gyn and pediatric wards of busy hospitals.

b. Fieldworkers. Fieldworkers ("FWAs," "FPAs," and "FWWs"), now over some 30,000 in number, represent a major failure in the delivery system thus far. Their training has not been sufficiently practical and their supervision is too half-hearted to render them a motivated effective corps of promoters of family planning and distributors of pills and condoms.

Recommendation: Given that these fieldworkers have a direct responsibility for what happens to the U.S.-supplied contraceptives, USAID should seek a more active role in encouraging and supporting fieldworker retraining and upgrading for practical skills. AID/Washington should strongly support USAID/Dacca attempts to render both their training and supervision more efficient.

c. Participant Training. Many Bangladeshis in key population posts have had U.S.-based participant training. However, numerous problems related to this training have led to the USAID-BDG phase-out agreement. In its place the BDG and USAID/Dacca have initiated an innovative program to give practical training in Indonesia to Bangladeshi family planning field supervisors. It appears, however, that many of these supervisors do not apply lessons learned once they have returned to Bangladesh.

Recommendation: USAID/Dacca should proceed with the proposed evaluation of the effectiveness of this training and with the "fast-funding" grant procedure also proposed whereby funds would be made available quickly and with a minimum of red-tape, to support promising projects proposed by the field supervisors -- as is done in Indonesia. AID/Washington should support this as a major opportunity to make the field elements of the program more effective (thereby also keeping attention on methods other than sterilization). USAID/Dacca should also consider sponsoring the systematic evaluation of its entire participant training effort.

11. Contraceptive Method Mix. Since July, 1977, pill distribution has remained unchanged while condom distribution has increased 30 percent. Emko (foam) use is small and static. Use of injectibles is small and scattered but expanding. Female sterilization, by those ready to terminate childbearing, is accelerating significantly. IUDs, long unpopular because of the unsatisfactory follow-up of the Lippes Loop, are gaining popularity since introduction of the Copper-T. In all this, however, there is little emphasis on child spacing.

Recommendation: USAID should constantly reiterate the need to motivate younger couples to contracept for spacing. Operations research should be directed at the provision of services to the large 20-to-29 age group.

12. An Oral Contraceptive Choice. Norinyl 1+50, provided by AID is the most widely distributed and used oral contraceptive in Bangladesh. However, there is universal discussion of vague symptoms, real or perceived, that cause a high discontinuation rate soon after acceptance. High continuation rates have been achieved in private sector projects that use active, informed field motivators and supply a small number of maternal and

child health services along with family planning. Nevertheless there is a need for an alternative oral contraceptive that will have the same wide range of distribution as Norinyl 1+50.

Recommendations: AID/Washington should initiate a discussion of an alternate to Norinyl 1+50. Acceptance rates for various formulations of oral contraceptives are available from numerous countries. There are fewer, vague, general complaints about oral contraceptives with estrogen doses below 50 micrograms, although breakthrough bleeding and amenorrhea remain problems. At the same time, USAID/Dacca should take concrete steps to see that the planned retraining of all fieldworkers prepares them to motivate more effectively for family planning and especially to know how to deal with side-effects issues.

13. Sterilization. Sterilization is culturally acceptable to Bangladeshis with an increasing preference being shown for female sterilization. Deaths which have occurred have been thoroughly investigated. With regard to procedures currently employed, surgical skills are acceptable; the areas requiring immediate improvement are the anesthetic regimen, aseptic technique, preoperative screening, and postoperative surveillance. While no surgical procedure is without risk, in Bangladesh today the risks a woman regularly incurs through childbirth and abortion are much greater than the relative risks of sterilization.

Recommendation: USAID and other donors should assist the BDG to improve the quality of sterilization services. Priorities recommended, in order of importance are:

- a. Insuring a better anesthetic regimen for female sterilization (to include preoperative sedation-analgesia program, local anesthetic field block technique, and patient monitoring);
- b. Aseptic technique improvement, especially instrument preparation and handling;
- c. More careful preoperative screening to rule out high risk clients; and
- d. Better immediate postoperative surveillance of women recovering from tubectomies.

To the extent that AID becomes more actively involved in the sterilization program, the following should be considered:

a. Preoperative Evaluation (Screening). A sampling of the physical examination charts, an on-site survey of examinations being performed, and a random check of actual weights and blood

pressure measurements were conducted during the evaluation. Omissions and inaccuracies of significant importance to the quality of preoperative screening were identified. The potential impact in an expanded program is an increase in morbidity and mortality of clients volunteering for sterilization.

Recommendations: USAID should encourage the BDG to take measures to ensure that paramedics ("FWVs") responsible for preoperative evaluation are retrained to improve their clinical skills. History-taking, weighing, taking of vital signs, and physical examination skills should be reviewed. FWVs should pass a standardized practical test of these skills for accuracy, completeness, and timeliness before returning to the field.

b. Laboratory Evaluation. A sampling of laboratory examination reports, an on-site survey of laboratory work being conducted, and a random check of hemoglobin measurements were conducted. Again omissions and inaccuracies were identified that could contribute to increased morbidity and mortality.

Recommendation: USAID should encourage the BDG to ensure that personnel responsible for laboratory work pass a practical examination to verify their ability to perform the tests within a standard of error acceptable for the procedure. In addition an on-site survey of laboratory tools and supplies should be conducted and periodically re-checked.

c. Aseptic Technique. Aseptic technique is a chain of steps no stronger than its weakest link. A sampling of busy sterilization units at work revealed breaks in technique during preparation and delivery of instruments and linen packs to the operating theater.

Recommendation: USAID should encourage the BDG to ensure the regular on-site observation of persons responsible for maintenance and handling of instruments, gloves, and linen packs. Their precise management of sterile and nonsterile but clean materials, boiling of instruments, and autoclaving of packs should be monitored from beginning to end. A recurrent review of the number and condition of sterilization units should ensure that there are enough instruments to permit time for cleaning and sterilization before the demand for re-use.

d. Number of Clients. At several busy sterilization centers, the patient load exceeds the capacity of the physical facilities and operators to provide quality care.

Recommendation: USAID should seek means to ensure that the BDG attempts to enforce its limitation of 12 procedures

to be performed by one operator per day. The BDG should also be encouraged to provide better pre- and postoperative areas and sleeping accommodations.

e. Supervision of Sterilization Units

Recommendation: If AID is to give increased support to sterilization, the surveillance component specified as a condition precedent in the new project paper must be carefully worked out and implemented. USAID should request the BDG representatives to clarify the chain of command extending from the district level to the site of operations. Specific responsibilities should be clearly stated. Where positions or responsibility are unoccupied, a time schedule for appointment should be agreed upon and an alternative supervisor named. On-site observations by members of the chain of command should be regularly scheduled. A plan should also be made for unannounced periodic third-party surveys. Survey teams should be made up of Bangladeshi professionals who would have the power to correct as well as observe procedures. An expatriate advisor should be an ex-officio member of the team.

A schedule of rewards for meeting goals and technical proficiency could be announced to recognize units and individuals who perform exceptionally well. Consideration should also be given to announcing a schedule of censures so that personnel can be encouraged to improve below average performance of duties.

f. Tubectomy vs. Vasectomy. Over the last four years the number of tubectomies has increased by a factor of three while the number of vasectomies has decreased by a factor of four. (In 1977, 66,000 vasectomies were performed while in the first six months of 1980 only 8,400 were done.)

Recommendation: USAID should request the BDG to initiate intensive client motivation and physician training activities to reactivate male sterilization as a viable program method. Attention should be directed to methods of communication which will reach and be understood by illiterate, rural men.

14. USAID/Dacca Population Staffing.

a. U.S. Staff. The mission has not been adequately staffed to simultaneously and fully meet the objectives of the present bilateral project while at the same time coordinating, in the most effective manner possible, the numerous centrally-funded project activities that have been important elements in establishing contraceptive availability and acceptance in Bangladesh. The mission's Division of Population, Health, and Women has

four U.S. direct-hire officers but only two work full-time on population. The present staffing pattern is even more inadequate for the task of getting the maximum impact from the increased number and greater programmatic as well as medical complexity of the activities proposed for FY 81-83 funding. This is especially serious given the centrality of sterilization in the proposed new project and the fact that USAID/Dacca's stated program strategy has recognized the need to place first priority on population.

Recommendations: The USAID/Dacca plan to revise its assistance portfolio to give population planning first priority should be endorsed and vigorously supported by AID/Washington. To effectively implement the expanded scope of family planning service delivery and "beyond family planning" measures outlined for the extremely complex new project, organizational and staffing changes should be made within USAID/Dacca. For greatest likelihood of effectiveness, it is specifically recommended that an Office of Population Planning be established headed by an Assistant Mission Director. Additional key staff would include 1) a deputy and senior population officer for service delivery, 2) a public health physician responsible for support to maternal child health and voluntary sterilization services, 3) a population advisor responsible for integrating population concerns into agricultural extension, education, women's programs, and rural development, and 4) an assistant population advisor to work with private sector grantees. Recognizing that USAID/Dacca's senior full-time population officer is scheduled to rotate soon to another post, it is essential that AID/Washington actively seek a high-quality replacement. Recognizing also that AID now has difficulty finding, in-house, population officers qualified and willing to take responsibility overseas for managing assistance to population programs, it is strongly urged that AID/Washington develop a plan for again building up its personnel strength, and thus competence, in population planning and program implementation.

b. Bangladeshi Staff. USAID/Dacca is serving as a talent identification and training ground for young Bangladeshi professionals who are subsequently hired away at much higher salaries by foreign firms, other foreign donors, and even by AID-funded intermediaries. Two valuable foreign-service-national (FSN) population officers have already been lost in this way and there is nothing to suggest that the most recently-recruited Bangladeshi professionals will not be similarly hired away.

Recommendation: Washington should recognize the false economy of a FSN salary scale set so far below that of competing organizations that USAID/Dacca cannot retain many of the talented people it recruits and should seek

to bring about a more realistic recalculation of the FSN salary schedule. To remedy this, the next local salary survey in Dacca should also include the plethora of U.N. agencies which have been excluded from the Department of State-sponsored survey even though, in Bangladesh, they--the U.N. agencies--are major employers of scarce technical and professional talent exceeding by far employment levels of the U.S. government.

15. Beyond Family Planning. Bangladesh's demographic crisis is already of such great proportions that efforts to strengthen family planning service delivery should simultaneously be accompanied by a range of small-to-large scale "beyond family planning" initiatives, which USAID/Dacca is now contemplating. Receptivity exists at government levels and many small-scale government and private sector projects are already experimenting with alternative approaches to achieving fertility reduction.

Recommendation: AID/Washington should give full, active support to USAID/Dacca's expressed plan to develop a FY 83 portfolio in which the majority of new project activity is designed in such a way as to contribute to fertility reduction. USAID/Dacca should continue to proceed swiftly with this "portfolio reorientation" via both its operations research mechanism and by enlisting appropriate outside technical expertise.

16. Donor Coordination. Effective cooperation has evolved during the past three years among AID, the World Bank, and UNFPA (the three major donors supporting the Bangladesh program). This has been due in large part to the personal efforts, qualifications, and high professional competence of the three donors' Dacca-based population advisors. The three advisors now routinely share information, work together to avoid duplication, and, when appropriate, adopt common positions on program issues requiring government attention. At six-month intervals, a larger assembly of donors is convened at a "Local Consultative Group Meeting" and periodically less formal meetings take place among UNFPA, Bank, and AID headquarters' staffs in the United States. From the field perspective, problems in this area have arisen due to the large number of Bank missions and with IDCA's directive to USAID/Dacca to monitor Bank proposals (the so-called "early warning system").

Recommendations: The focal point for donor coordination should remain in Dacca where donor representatives have more current knowledge of program issues than their respective headquarters' staffs. Headquarters representatives should take specific steps to minimize the flow of separate and special evaluation and appraisal missions which consume an inordinately large part of senior Ministry of Health and Population Control staff time. Specifically, if concerns

over the future course of the voluntary sterilization program merit further special attention by donors, combined donor missions should be considered as more appropriate than several separate ones. Also, if "beyond family planning" strategies are to be explored, combined donor representation could be desirable. Previous combined missions in Egypt, Sri Lanka, and Thailand are useful precedents to consider.

Part III

THE BANGLADESH CONTEXT

1. OVERVIEW: THE CONSTRAINTS TO DEVELOPMENT

According to recent calculation (for example, that of the World Bank), Bangladesh may be considered the second poorest country in the world, ranking in this regard only after Kampuchea. A demographic and social overview of Bangladesh is presented in Table I below. However, to properly comprehend the enormity and complexity of Bangladesh's problems one must start with its physical aspects and then comprehend the human and social dimensions and consequences.*

The Physical Setting

Most of Bangladesh is flat, wet, alluvial plain formed over the centuries by three great river systems depositing silt as they near the Bay of Bengal. Indeed these rivers--the Ganges, the Brahmaputra, and the Meghna--lose their individual identities as their waters become mingled in a maze of waterways and swamps along the southern coast. Much of the country is less than 30 feet above sea level and everywhere there is water causing Bangladesh to resemble a large jigsaw puzzle that has been broken and set down on a vast, flat lake.

This 55,126 square miles, a total area slightly smaller than Wisconsin, is home for about 90 million people. The result is a population density greater than anywhere else in the world apart from tiny city-states such as Hong Kong and Singapore. On the average every square mile of land contains more than 1,600 people--in contrast to Wisconsin's 8.7 people per square mile. With few exceptions, one cannot stand anywhere in Bangladesh without being visibly surrounded by humans or human settlements.

In addition, Bangladesh is largely without natural resources except for some low-quality coal, moderately large reserves of natural gas, and soil so fertile that traditionally, Bengalis have boasted, "you only have to stick a twig in the ground and crops will grow." But the flat, riverine beauty of the land adds to its vulnerability and existence on it is made more precarious by its propensity to vicious natural disasters. Annually, human life is in danger from four scourges: river flooding, cyclonic storms (hurricanes), disease, and famine. Overpopulation has set the stage for periodic

*This section is based in large part on excerpts from Kevin Rafferty, "Bangladesh." 1979 Asia and Pacific Annual Review. Singapore, 1980, pp. 83-89.

Table 1**Relevant Demographic and Social Data***

Population	90 million
Crude birth rate	44 per thousand
Crude death rate	16 per thousand
Rate of natural increase	2.8 percent per year
Number of years to double	24.6
Total fertility rate	7.1
Infant mortality rate	Below 150 per thousand
Maternal mortality rate	7.5 per thousand
Percent population 14 years and under	46 percent
Average age of females at marriage	15-16
Life expectancy at birth	46 years
Per capita income	Equivalent to U.S. \$100
Rural population	90 percent
Population density	1,630 per square mile
Annual net increment to labor force	900,000
Literacy	
Overall	24 percent
Male	30 percent
Female	12 percent
Number of married women 15 to 49	17,000,000
Currently practicing contraception	12.7 percent
Dependency ratio	95
Population per physician	About 12,600:1
In rural areas	About 46,200:1
Religious identity:	
Muslim	85 percent
Hindu	14 percent
Buddhist, Christian, Animist	1 percent

*All figures are best possible approximations as of November, 1981.

starvation; rice, Bangladesh's main crop, is insufficient to meet the country's own needs. The tropical climate and lack of adequate sanitation encourage disease, especially after floods and storms. About 90 percent of the population live in rural areas where they are engaged directly or indirectly in agricultural production.

There, owing to natural factors, travel and transportation are mainly by foot or boat and barge. There are 3,000 miles of navigable rivers but less than 700 miles of surfaced roads, for the marshy ground and many rivers make road building difficult and costly and annual rebuilding after the monsoon essential. Given

this, journeys of only a few miles easily become exhausting, all-day undertakings.

Bangladesh is virtually a monoculture with only two crops and few main occupations. Rice is grown for food and jute primarily for export. Raw jute and jute products traditionally make up 75 percent of Bangladesh's exports. Total export of all products, however, is less than 40 percent of the country's imports. The 90 percent Bangladeshis who are rural depend for life and livelihood on the monsoon between June and October, which provides rain for the crops. Industry accounts for only about 11 percent of the GNP and the most important industries are jute-milling and textile production for home consumption using imported cotton.

Bangladesh's poor resource base means that it has to import even the most basic products such as cotton, oil and petroleum products, chemicals, oilseeds, drugs, and more than one metric ton of food-grain each year. As an example of the poverty of resources, Bangladesh has very few stones so that road building is a tedious process; mud bricks have to be baked and are then pounded by human labor into small gravel-like pieces to lay the foundations of the roads.

The Human Context and Historical Legacy

Bangladesh is, after Indonesia, the largest Muslim country in the world, with 85 percent of its people professing Islam; Hindus constitute another 14 percent followed by small minorities of Buddhists, Christians, and animists. In broader ethnic terms, however, Bangladesh is very homogeneous, since 98 percent of the people are Bengali and speak a common language, Bengali. Urdu-speaking, non-Bengali Muslim immigrants from India, largely Biharis, comprise one percent with the remaining one percent made up of various tribal groups.

Not only are Bangladesh's land and resources poor but so too is its socioeconomic and managerial infrastructure. Before the European maritime revolution brought colonial entrepreneurs to Asia in the early sixteenth century, Bengal, with its capital in Dacca, had been a rich country famous for silks and muslins. Since then there has been a decline with the area around Dacca for several centuries being tucked away at the end of someone else's empire; the centers of gravity shifted to far-away metropolises and the Muslim Bengalis were left to grow high-quality jute and rice. First it was the British whose Bengal, from 1765 to 1947, was based in Calcutta; then, with independence from the British in 1947, East Bengal became a part of Pakistan whose capital was first in Karachi and then in Rawalpindi/Islamabad, more than 1,000 miles and culturally and psychologically a whole world away. Pakistan was run largely by Punjabis while the Bengalis, though a numerical majority in the whole country, were generally left out. Nor did East Pakistan share in Pakistan's general economic drive. Under Pakistan rule an industrial structure was built

in East Bengal, but it consisted largely of jute mills to replace those of British India, which were now located across the Indian border in Calcutta. The Bengalis also legitimately complained that the large foreign exchange earnings from jute were spent mainly to build up West Pakistan's more broadly-based industry.

This poor socioeconomic infrastructure was shattered by natural and man-made disasters that hit East Bengal every year from 1970 to 1975. 1969-70 was the last normal period of rule by Rawalpindi/Islamabad before the calamities began. Late in 1970, East Bengal was hit by a cyclone which in a few hours whisked half a million people from the face of the earth. The apparent indifference of Pakistan's leadership to this massive disaster led to the crushing election victory of Sheikh Mujibur Rahman and his Awami League in December 1970. Capturing an all-Pakistan majority in the National Assembly, Sheikh Mujib pushed ahead with a campaign for autonomy for East Bengal. The Pakistanis, spurred on by Zulfikar Ali Bhutto and President Yahya Khan, insisted that East Bengal remain part of Pakistan even at the price of bloodshed. Troops cracked down on the Awami League and its supporters--which effectively meant most Bengalis. A liberation struggle ensued which resulted in the decimation of East Bengal's intelligentsia and leadership strata and which throughout 1971 sent nearly ten million Bengalis fleeing across the border in India. This culminated in a full-scale war in which Pakistan was defeated by the combined forces of India and the East Bengali rebels, and independent Bangladesh was created.

After independence in late 1971, natural disasters of one sort or another continued to buffet Bangladesh requiring food imports of more than two million tons per year as part of the billions of dollars of aid accompanied by hundreds of international experts sent by the United Nations, India, the U.S., and other countries willing to help Bangladesh get onto its feet. Then, in 1974 and 1975, lack of administrative experience began to take its toll. Under Pakistan rule all but a handful of Bengali civil servants had been confined to lowly positions. As president, Sheikh Mujib, who had had no previous governing experience, was forced to deal with the combined difficulties of constant politicking throughout government and industry, corruption at senior ministerial levels, and the too-thin layer of bureaucratic expertise. Sheikh Mujib was a skilled politician with an openness even to the queues of ordinary people who appeared before him, but he was at a loss at to how to run an economy, let alone how to build up a poor country like Bangladesh.

In August, 1975, Sheikh Mujib and his entire family were murdered by a group of dissident army majors. Three months of instability ensued as factions of the army jostled for power and finally persuaded the original group of dissident officers to leave the country. Then, in November 1975, Major-General Ziaur Rahman--or Zia, as he is now known--emerged as the strong man and has remained

so ever since. After operating initially under the aegis of martial law, Zia in June, 1978, established his own credentials with an overwhelming 4-to-1 presidential election victory. Zia's dominance and popularity were confirmed in early 1979 when his Bangladesh Nationalist Party won 203 of the 300 seats in the parliamentary election. There were protests from 36 of the country's 50-some political parties that the election had been rigged, but the victory clearly reflected Zia's popularity.

Still in his early forties, Zia brought a sense of order and discipline to a chaotic Bangladesh and has worked vigorously to get the country moving; his government has worked diligently to push the country forward on all fronts and has tried initiatives which previous regimes lacked either the imagination or the political will to promote. Zia has referred continually to the need for hard work. "We must work hard to pull this country up by its bootstraps," he is quoted as saying. "There is no substitute for hard work. I on my own cannot do it, nor can ten individuals. But everyone pulling together can do everything."* Zia has tried to set an example by tirelessly touring each of the districts of Bangladesh and showing a willingness to travel miles on foot and by humble country boat in order to reach and throw his weight behind development projects in even the more inaccessible parts of the country. Remarkably, even his critics have not been able to find cases of personal corruption against him. After five years of rule he retains popular support, in large part because of his vigor and personal incorruptibility. He has remained constrained, however, by the country's poor resources and by population growth which he views as the primary long-range problem because of its serious economic consequences.

Socioeconomic Constraints

A child born in Bangladesh today faces prospects of a grim life. The rural 90 percent of Bangladeshis live in 55,000 villages, typically in small one-room huts they build for themselves out of a mixture of mud and dung. Life expectancy at birth is about 46 years but one-fifth of everyone born dies before the age of five. Because one-third of pregnant and lactating mothers suffer from calorie deficiency, they and their children are weak and vulnerable. Pneumonia and diarrheal diseases are the major causes of infant mortality and tetanus a major cause of neonatal mortality; scabies, respiratory infections, and worm infestations are prevalent. About 15 percent of the children from 0 to 5 years are victims of acute and chronic malnutrition and the growth of another 60 percent is stunted by chronic undernutrition. Communicable diseases such as malaria, tuberculosis, and leprosy also account for a large proportion of morbidity and mortality.

*Rafferty, op. cit., p. 86.

Health services available to most villages consist generally of the traditional village midwife (dai), local indigenous health practitioners, and occasional visits by field-based health and family planning workers. Doctors and hospitals are so remote in terms of travel time as to be considered only at times of serious need and even then are likely to be beyond reach. Bangladesh now has an estimated 7,000 physicians, only some 1,750 of whom are located in the rural areas--a ratio of about one doctor per 46,200 rural people. Medical education is hospital- and curative-oriented with little emphasis on public health. Government health clinics are not a highly-respected source of health care and are characteristically underutilized. The cadre of rural health workers that has been built up in recent years suffers from lack of motivation and supervision and, with the exception of the earlier smallpox and malaria campaigns, there is little indication that they are delivering any effective health services to the rural poor.

Per capita income equivalent to about U.S. \$100 is one of the lowest in the world. At the same time with about 46 percent of the population under age 14, the dependency ratio of about 95 is one of the highest in the world. For the many families whose incomes are below the average, one full meal a day is a luxury. Average per capita food consumption is about 15 ounces a day or under 2,000 calories, with little protein and limited vegetables. Most Bangladeshis do not have access to safe drinking water or sanitary facilities. Literacy is just over 20 percent. Per capita consumption of cloth is equivalent to just enough for two simple loin cloths a year for each person.

But even in this drab set of statistics there are many variations. The poorest of the poor Bangladeshis are among the most deprived people on earth. The Bangladesh Land Occupancy Survey taken in 1978 showed that 54 percent of rural Bangladeshis were attached to households that effectively owned no arable land. In addition, nearly half of the landholdings were of less than one acre. Only 29 percent of Bangladesh's cultivable land is directly owner-cultivated, dependent primarily on family labor; the rest is sharecropped or cultivated by hired laborers. Tenants have an unstable time in that they are quite likely to be turned off their land when it suits the landlord. In some areas tenants, who usually pay for all inputs, have to hand over as much as 66 percent of the crop to the landlord, the normal tribute is 50 percent.

The implications are striking even for a poor country--a highly skewed land ownership pattern in which a few rich people benefit inordinately. The survey also showed that about three percent of households accounted for 29 percent of land and 11 percent of the households owned 56 percent of the land. This situation is also reflected in Agriculture Ministry studies which found that some landowners had more than 200 acres though the official land ceiling is 30 acres.

Local politics are based on a series of patron-client relationships. The landless have no say in local politics and can only hope that their patrons will win, in which case some of the benefits might trickle down to them.* Poor peasants say openly they would vote for whomever the local landlord designates since he controls the amount of work they can find. To share in democracy is not easy for the illiterate, landless masses. With a poor harvest the plight of the marginal families becomes more desperate. They fall further into debt and distress sales of their land increase or they sell a part of their meager land holdings to buy the next meal. Distress sales of land have been continuing at a rate well in excess of the rate of increase in population and numbers of landless are increasing at an estimated five percent each year.

These findings are desperately serious precisely because land is the only basis of livelihood for the majority of rural Bangladeshis. Unlike the wealthier Asian countries, there is relatively little off-farm employment. Many persons without land thus either remain in the countryside hoping to get enough day labor at harvest time and in odd jobs the rest of the year or drift to the towns where there is already harsh competition for work such as pulling rickshaws or selling knick-knacks. Although recent surveys have indicated a considerably higher level of rural off-farm economic activity than had previously been thought to exist, agriculture nevertheless still accounts for some two-thirds of rural employment.** However, at the rate of growth prevailing in agriculture since independence in 1971, agricultural employment can have risen at no more than a 1.0 to 1.5 percent annual rate, while the population has been growing at the annual rate of 2.8 percent. Increases in overall rural employment, therefore, have probably not kept up with the growth in the rural labor force. Rural unemployment (actually, unemployment/underemployment expressed as an unemployment equivalent) has remained at 30 to 35 percent, and would be higher still were it not for the steady migration to the cities.

Even if the rate of rural unemployment is not rising, the numbers of the rural unemployed certainly are. Given that Bangladesh's population may reach 150 million or more by the year 2000, the numbers of absolutely poor will be astronomical and disaster a certainty unless something drastic and dramatic can be done swiftly to equalize incomes and to encourage the people of Bangladesh to feel a stake in their country and plan their families and their

*See also "1980 Country Development Strategy Statement," USAID/Dacca, pp. 11-13.

**See especially Bangladesh Institute for Development Studies, Rural Industries Study Project, Phase II, Dacca, March 1980.

future. Knowledge about modern methods of family planning is widespread, as recent surveys show, and desire to limit the number of children born to a woman is considerable, as is indicated, among other things, by the frequency with which women seek to have abortion induced. A major sociological obstacle remains, however, the status of women in Bangladesh, a subject that must be more actively addressed for progress to be made.

2. THE STATUS OF WOMEN: INFERIOR AND ISOLATED

In Bengali culture it is taken for a fact that women are inferior to men. In Bangladesh today it is a fact that rural women are the most disadvantaged category of all Bangladeshis. This is true both with regard to their social status, their lack of economic status, and their often miserable nutritional status. This low status of women is one of the most important and, some would argue, the most important of all factors in perpetuating high fertility in Bangladesh. Questions regarding population and family planning cannot be answered with any degree of accuracy whatsoever unless the situation of this deprived category of human being is understood, and indeed the same may well be true of questions regarding the ultimate outcome of any attempted development effort in this people-strangled country.

Rural Bangladeshi women can be divided into three main groups, whose lifestyles differ significantly.* The poorest of the three are the "destitute" women who are usually widowed, divorced, abandoned or deserted and who must beg or hire themselves out as laborers or servants to other families in order to survive. These destitute women are about 15 percent of all rural women. The second group is made up of wives of landless farm laborers or daily wage earners, sharecroppers, or small farmers (whose holdings are about 1½ acres or less). These women constitute an estimated 70 percent of all rural women. Usually they work within their households receiving neither wages nor hiring household help. The third group of women, who constitute about 15 percent of the rural female population, includes the wives of merchants, professionals, and large landowners (with holdings of 1½ acres or more). These women can afford to hire domestic servants and are the only ones with any leisure time to speak of. This group includes most of the educated rural women (eighth to tenth grade equivalent) who are usually the first to take advantage of opportunities for employment and training.

One of the main signs of a rural Bangladeshi family's status is the behavior of its women. The cultural ideal for women includes strict purdah, complete sexual division of labor, and relative freedom from mental work. Only relatively wealthy families can afford to support such behavior, but because it is a symbol of influence and power, the great majority of families aspire to come as close to these goals as possible. Purdah, literally meaning "the curtain," refers to the system of seclusion of women prevalent

*This section draws in large part on Louisa B. Gomes, "Changing Role of Women in Bangladesh" (USAID/Dacca, 1980) which presents an outline of the most recent attempts to improve this role as well as a sociological overview based on works on women in Bangladesh published during the 1973-79 period.

in the Middle East and South Asia but is especially rigidly adhered to in Bangladesh. Strict practice means that a woman stays within the family compound, which is surrounded usually by a wall of vegetation and sometimes has screens of woven rushes to hide the inner courtyard, and is never seen by any but close family males. If a woman in strict purdah must leave the compound to visit her parents or for some emergency, she wears a burkha, an all-enveloping loose robe that covers her from head to toe, concealing also her face. She travels in a bullock cart with a cover over each end or in rickshaw entirely wrapped with fabric, or she travels at night by boat. Where roads do not exist she may be transported, doubled up, in a wooden box called a pulkhi (meaning "palaquin") which is carried by four men and which, to a Westerner, appears only large enough to hold a child.

Only a few households in a village can maintain such strict purdah, and it is stricter in some parts of the country than in others. All villagers look to these households as the most prestigious and respected-- and an honor to the village--and to this way of life for women as the most desirable. In fact, they do not like to see a lapse in the behavior of these women, and if there is one the family's prestige suffers. Attitudes toward purdah are slowly changing and although there is evidence that the rigidity of purdah is decreasing due to economic stress, many women will still remain confined to their homesteads. Although some women may go outside the compound to fetch water from a handpump or well, wash clothes in a pond, pick vegetables in a garden plot, or collect fire wood, women rarely if ever go shopping in the market.

The productive work hours of rural women vary from ten to fourteen, whereas for men the daily productive work hours are approximately ten to eleven. Women's activities include seed preparation, grain storage, vegetable and fruit growing, poultry raising, livestock care, food processing and preservation, household maintenance and repair, fuel gathering, and post-harvest rice procuring, each of which activities is critical to the rural and household economy. Women play a dominant role in cottage craft production for both local and foreign markets. This includes producing fish nets, baskets, mats, jute products, quilts, rope, fabric, and some food products. But in spite of the fact that handicraft production may be a full-time occupation for some women, they are nevertheless dependent on men to supply the necessary raw material inputs and to market the products.

In many villages the relationship between rich and poor women is more feudal than commercial. For example, women from a number of poor households may be at the call of a rich household and must perform various services often at a moment's notice. Such work includes helping with rice husking and milling, fetching water, cooking at feasts, and being available to clear the courtyard of drying rice when rain suddenly threatens. For some of these

services there will be no immediate return; for others, some of the food being processed or prepared is given to them. Throughout the year village elites give sustenance and support to the poor in the form of food distributed on religious occasions and in the form of saris and relief goods distributed during natural calamities or election time or because of thanks to Allah for prayers granted, at babynaming and circumcision ceremonies, and at death anniversaries. The rich family may also provide small loans without credit or publicity.

Although strict purdah is still the cultural norm in most villages, the reasons for deviations among respectable families indicate that purdah might be relaxed if the tradeoffs were regarded as sufficiently advantageous. One significant change concerns the education of daughters. Primary education as a desirable standard for rural girls seems to have become acceptable over the last 10 to 15 years and there are indications that secondary education for rural girls, though still negligible, is on the increase. Such girls' schools, however, are very few in number.

A female in rural Bangladesh steps into the reality of womanhood being a child bride, a child wife, and a child mother. Although the legal minimum age of marriage for women is 16, nearly all young rural women today are married off before or immediately after the onset of menstruation. Early marriage has traditionally been valued as conducive to good post-marital adjustment on the grounds that the new daughter-in-law has not yet developed an independent personality and is therefore still malleable. Furthermore, in this culture which prizes female virginity, early marriage is additionally valued as a means of assuring that one's daughter does not lose her virginity before marriage, thus becoming a liability and potential economic burden to her parents.

Childbearing is rarely a matter of a woman's own decision-making. Rather it depends on her social status which again is often dictated by important family members, her overall status in terms of number and sex of previous children born, and by her family's economic status. The young bride begins bearing children soon if not immediately after marriage, is unfamiliar with the concept--let alone merits--of spacing births, and continues to produce an average of about seven live children after 12 pregnancies. Spacing that does occur is primarily due to the two-to-three years of lactation amenorrhea which is common among Bangladesh's malnourished women. Thus, middle-aged women becoming pregnant for 16 to 17 times in their fertile eligible married years is not uncommon in rural Bangladesh.

A shift toward slightly later ages of marriage for women--from child to teen-age marriage--has been taking place. Most older rural women recall having been married off even younger than is customary today--at least one or two years before the onset of menstruation, that is, at about 11 or 12 years of age. And some

village girls today pass the onset of puberty without marrying--something which most villagers consider a social problem of recent origin. But there is still no rural belief justifying later marriages. Thus, in practice, the marriage law itself has little effect on the traditional and continuing preference for child, or teen-age, marriage of females. In one recent village study, none of the women interviewed were even aware that a law exists prohibiting marriage below the age of 16 for women.* Relatives of unmarried girls that are clearly sixteen or seventeen will consistently report the girls' ages as 12 or 13. With delivery at home almost universal and in the absence of an effective birth registration system, the national marriage law is difficult to enforce and women continue to be disadvantaged by social custom. It should come as no surprise that a great majority of all adult female deaths in the ages 10 to 50 years of age are maternity related.** Approximately 27,000 women die each year in childbirth while another approximately 8,000 die from abortion induced by a variety of unsanitary folk methods.

In the past five years, steps have been taken to increase the participation of Bangladeshi women in development programs, to insure their legal rights, and to raise their status. President Zia has consistently seized and created opportunities to speak out in favor of full female participation in all sectors of society and initiated programs toward this end. While this concern is generally not translated into action by officials below him, Bangladesh's Constitution now states that equal opportunity is guaranteed to all citizens regardless of sex. Campaigns against the dowry system and other social customs connected with marriage are receiving attention; a bill calling for the elimination of the dowry system is presently awaiting passage in the parliament. Under Zia, the government has ruled that 10 percent of all vacancies in both government and non-government sectors must be set aside for women. At least in the lower levels these vacancies are being filled. Also, in the National Assembly 30 appointive seats are reserved for women and in 1978, a separate Ministry of Women's Affairs was created. The government's Second Five-Year Plan specifies the following as objectives for increasing the status of women during the years 1980-85:

*See, for example, Shamina Islam, "Nonformal Education for Rural Women in Bangladesh" and "Rural Women in Bangladesh: Socio Economic Conditions and Educational Needs" (both publications of FREPD, Dacca, 1979).

**See Chen et al., Maternal Mortality in Rural Bangladesh (Dacca, The Ford Foundation, 1974); and Stan D'Souza and Lincoln Chen, "Sex Biases of Mortality Differentials in Rural Bangladesh" (Dacca, International Centre for Diarrhoeal Disease Research, Bangladesh, 1979).

1. Ensuring proper atmosphere for women to participate in socioeconomic activities;
2. Expansion of educational opportunities for women (30 percent of the employment in all educational institutions have been reserved for women);
3. Provision of adequate facilities for non-formal and vocational education, skill development, specialised training for development of managerial and entrepreneurial abilities;
4. Formation of women's association for formulation of policies and promotion of activities for overall upliftment of women and for organization of training for uprooted women for their rehabilitation in the society; and
5. Provide health and medical facilities and maternity cares, extend family planning programs all over the country.

As of late 1980, newspapers several times a week carry front-page accounts of Zia, in some public forum, telling women that the future of Bangladesh depends upon them and exhorting them to participate fully in all sectors of the country's development. Significantly, none of these articles say anything about the need for men to let the women come forward.

3. POPULATION SIZE, GROWTH, AND DATA

Availability and Quality of Demographic Data

Estimation of fertility and mortality levels and trends in Bangladesh is particularly difficult because conventional data in the form of complete registration of vital events and accurate census counts are absent. Also, the available censuses and sample demographic surveys are characterized by very extensive misreporting of age, understatement of parity (at least among older women), and possible overall miscounting. A national census is scheduled for March 1981; final results will not be available until much later but when available will allow the first overall look at population since recovery from the 1971 war of independence and the 1974 famine.* At present the best primary sources of demographic data are the following.

- a. National censuses and surveys:
 - Eight censuses since 1901,
 - 1960 and 1973 housing censuses,
 - 1962-1965 Population Growth Estimation
 - 1968/69 National Impact Survey
 - 1974 Bangladesh Retrospective Survey of Fertility and Mortality,
 - 1975/76 Bangladesh Fertility Study, and
 - 1979 Contraceptive Prevalence Survey.

- b. Subnational surveys:
 - 1961/62 Demographic Survey of East Pakistan,
 - 1968 Comilla Study,
 - 1966/77 Cholera Research Laboratory Data, and
 - 1975/1979 Comaniganj Demographic Survey.

The most thorough compendia and analyses of the primary data are the Estimation of Recent Trends in Fertility and Mortality in Bangladesh, by the Committee on Population and Demography, National Research Council, U.S.A. (National Academy Press, Washington, DC, 1981), and Demographic Characteristics of Bangladesh, by Dr. Sawon Hong, (Eastern Commercial Service, Ltd., Dacca, Bangladesh, 1980), the latter having been commissioned by USAID, Dacca.

In addition to the difficulties noted above, demographic analysis for Bangladesh is further complicated by two special problems: extensive but unrecorded international migration and fluctuations in fertility and mortality caused by recent natural disasters or political upheavals. Nevertheless, it has been possible to establish approximate limits for recent fertility and mortality rates and for their evolution during years not characterized by catastrophes.

* Since completion of the evaluation, preliminary results have been released showing a total 1981 population of 89.9 million.

Present Demographic Profile and Growth Trends

Given these caveats, the reader must use caution in interpreting vital data. Nevertheless, vital rates from the two sources cited here produce the demographic profile shown below.

<u>Demographic Profile</u>	
1. Population size, 1980 estimate	90 million
2. Rate of natural increase, early 1960s to 1975	2.9 to 3.4 percent
3. Population growth rate, 1961-74 (excluding out-migration)	2.6 percent
4. Doubling time at 2.6 percent per year	26.5 years
5. Total fertility rate, 1962-1974	7.1 children
6. Crude birth rate 1974	44-48 per 1000
7. Crude death rate	
Mid 1960s	18 per 1000
Mid 1970s	17 per 1000
8. Infant mortality rate (deaths 0-12 months)	150 per 1000
9. Child mortality (deaths 1-5 years)	22 percent
10. Population younger than 15 years	Nearly 50 percent

With an annual growth rate of 2.6 percent and a population of approximately 90 million, Bangladesh adds 2.34 million people to its crowded land each year. The world's tenth largest country in 1960, it now is the eight largest and soon will surpass Japan to become the world's seventh most populous nation. As in many developing countries, rapid growth is a phenomenon of the past 30 years. The population censuses show low rates of population growth during the period of 1901-1951, a rate of less than one percent per annum. Only after 1951 did the population grow faster, showing a 1.9 percent annual growth rate for the period 1951 to 1961 and increasing to 2.6 percent between 1961 and 1974 as death rates fell.

Doubling Time. One way to grasp the implications of a particular rate of population growth is to consider how long it would take a population growing at that rate to double. It took more than 60 years for the population of what is now Bangladesh to double from 28.9 million in 1901 to 57.5 million in 1965. But later, it took only 38 years (between 1936 and 1974) for the population to double, from 38.2 to 76.4 million. Now if Bangladesh's 2.6 percent population growth rate of 1974 were to remain constant, the 1974 population of 76.4 million would nearly double to 152.4 million in only 26.5 years--by about the year 2000

Declining Space Per Person. Population increase naturally reduces the amount of space available per person. Between 1921 and 1974,

the population density doubled which, of course, reduces the space per person by 50 percent. By 1960 Bangladesh was the fifth most densely populated country in the world. It became fourth in 1980. Applying the net cropped area statistics to the total population provides data on the land-person ratio; as shown below, in less than 20 years the country's land-person ratio, which was already one of the lowest in the world, has declined by one-third.

	<u>Net cropped area (1000 acres)</u>	<u>Total population</u>	<u>Land-person ratio</u>
1961	19,138	54,531,000	.35
1974	20,550	76,398,000	.27
1980	21,000	89,715,000	.23

Presented in tabular form, these and other relevant demographic data (see Hong, cited above) include:

Population growth rate

1931-1951	Less than 1 percent
1951-1961	1.9 percent
1961-1974	2.6 percent

Doubling time

1901-1965	60+ years
1936-1974	38 years
1974-2000	26.5 years (estimate)

Density and declining space per person

1960	Bangladesh fifth most densely populated country in world
1980	Bangladesh fourth most densely populated country in world
1961-80	Land/person ratio decreased by one-third

Proportion of women married

1961	Thirty percent of women 10 to 14 years of age had been married
1974	Less than one percent women 10 to 14 years of age had been married
	By 30 years of age, 99 percent of Bangladeshi women have married

Dependency ratio ($\frac{\text{population 0 to 14} + \text{population 60+}}{\text{population 15 to 59}}$)

1961	105.7 (peak dependency ratio)
1974	96.7

(Developed countries have a dependency ratio of approximately 50; developing countries one of approximately 80.)

4. SOCIOECONOMIC DETERMINANTS OF FERTILITY

What are the specific relationships between the social and economic characteristics of Bangladesh's population, presented above, and fertility? In the foreign donor community doubts are frequently expressed by persons not particularly familiar with Bangladesh as to whether family planning is culturally acceptable to Bangladeshis and whether a demand for family planning services actually exists. This section explores these questions and presents recent findings regarding socioeconomic determinants of fertility prevailing in Bangladesh.

Cultural Acceptability and Demand for Family Planning

Pronatalist forces abound in Bengali society. Numerous sociocultural and economic factors work strongly against the achievement of a small-family norm. A clear distinction must be made here, however, between cultural norms and cultural acceptability. The cultural norm in Bangladesh--as in virtually all other traditional rural-based societies--is for many children, especially sons. At the same time, there are very few cultural rules--either Bengali or Islamic, as Islam is interpreted in Bangladesh--that makes either contraception in general or specific methods in particular unacceptable to the average Bangladeshi. That is to say that, while the average rural Bangladeshi couple proceeds without much weighing of pros and cons to give birth to at least four or five children, and while practicing contraception is not yet regarded in local village circles as "the thing to do," it nevertheless is not culturally tabooed to practice contraception, be it a temporary or permanent method. This cultural acceptability is indicated by the long-standing use of traditional methods--specifically coitus interruptus (referred to as azl), rhythm, abstinence, and prolonged breast-feeding as well as occasional induced abortion--methods which, not including induced abortion, account for about one fourth of the total family planning acceptors. Unlike the situation in many other Islamic countries where people resist using modern contraceptives, especially sterilization, on the grounds that it is "against the religion" or "against the will of Allah," what one hears far more frequently from the average Bangladeshi is not this but rather that there is "no need" to use family planning because "Allah will provide." The distinction is an important one. In this regard it should be noted again that there is virtually no organized religious protest against family planning, as is the case in many other Islam and also Catholic countries.

Given the prevailing cultural norms, demand for small families is not great but once several children have been borne--and especially if more than one are sons--the demand to limit the number of additional children increases considerably. This is evidenced by the significant number of high-parity women who seek either sterili-

zation, termination of unwanted pregnancy by means of menstrual regulation, or a combination of menstrual regulation followed by sterilization. There is also persuasive evidence of considerable latent demand--a nascent or tentative desire to limit births but the failure, as yet, to do so. Reasons commonly cited by women for failing to follow through with what seems to them a potentially good idea include, for example, disapproval by their husbands (frequently because the husbands fear that the protection from pregnancy afforded by family planning will lead to promiscuity on the part of their wives or because the women themselves fear side effects from using modern contraceptives.

The "bottom-up demographic transition phenomenon." In the more developed countries it has been the established pattern that the demographic transition from large to small families has been led by high income, educated couples at the upper end of the socioeconomic scale followed by somewhat lower-income and less educated couples, or women, who see limiting the number of children they must support as a means to raising both their own standard of living as well as, eventually, that of their children. There are indications in Bangladesh, however, that a quite different phenomenon is underway, one that may be of significant consequence for family planning program strategies. Referred to by some as the "bottom-up demographic transition," this is led not by middle- or higher-income persons seeking to improve their economic status but by the very poorest of the poor who are struggling simply to survive on a day-to-day basis. This "survival group" comes from the landless unemployed and underemployed--about 48 percent of all families according to some BDG family planning sources.* This phenomenon is illustrated by data from a recent study of 355 extremely poor women employed as day laborers in road building and other earth moving projects, data which showed a contraceptive use rate of 26 percent among these women--that is, a rate about twice the national average and one that apparently exists in the absence of any special intensified family planning motivational or service delivery activities.**

Overview of Socioeconomic and Cultural Determinants of Fertility

Because of prevailing socioeconomic and cultural determinants of fertility are one of the major factors in the calculation of how effective a family planning program will be in any given country, these are summarized below in some detail according to the following headings: age at marriage, proportions married, duration of marriage; rural-urban differentials; social class; landownership; education; employment and decision-making authority; religion

*See, for example, "Draft Population Action Plan for Bangladesh, 1978-2000," dated May 1, 1979, p. 12.

**Elizabeth Marum (with the assistance of Mahbuba Kaneez Hasna), Women in Food for Work in Bangladesh, USAID/Dacca, 1981, p. 111.

and religiosity; purdah; lactation, nutrition, and infant mortality; and rural development, modernization, and family planning.*

Age at Marriage, Proportions Married, and Duration of Marriage

--Nine out of ten girls are married in their teens; the proportion of women 15 to 19 ever married in Bangladesh is the highest in the subcontinent.

--Women marrying at very young ages (below 12) have lower fertility than those marrying at 12 to 17 (probably due to adolescent sterility or subfecundity). Those marrying at 18 and above have lower fertility than those marrying at younger ages.

--Duration of marriage, largely a function of age at marriage, is the most important variable directly affecting the number of children ever born.

--Given (a) the continuing pattern of early and almost universal marriage, (b) the concentration of marriages within a short age range, and (c) the current age structure of Bangladesh, the crude birth rate is likely to rise due to increasing number of young women entering the reproductive ages.

--The concentrated age range of marriages contributes to a concentration of births: two-thirds of total children are born to women in their twenties. Births to younger women contribute to a short length between generations.

--A far-reaching demographic effect could be made by raising the age at marriage and spreading the age at first marriage over a wider range (say from 13 to 19 to 18 to 25).

Rural-Urban Differentials

--Mean parity of urban women is higher than that of rural women. Urban fertility may be higher due to better health and nutrition, better housing and sanitation, or better medical facilities.

*Excerpted from the executive summary of Mohammad Alauddin, Socio-Economic Determinants of Fertility in Bangladesh: A Review. Institute of Social Welfare and Research, Dacca University, 1980. (Executive Summary prepared by Dr. Alauddin with assistance of Dr. Carol Carpenter-Yaman of USAID/Dacca.) A second major study of socioeconomic determinants is also underway. Initiated in about 1977, this is being conducted by the Bangladesh Institute of Development Studies with the participation of the World Bank; findings are not yet available. Also to be consulted is the detailed USAID-funded study, Beliefs and Fertility in Bangladesh by Clarence Maloney, K.M. Ashrafu'l Aziz, and Profulla C. Sarker, Institute of Bangladesh Studies, Rajshahi University, 1980.

Alternatively, urban women tend to breast-feed less than rural women and this may shorten the duration of lactational amenorrhea.

--Although urban fertility is higher, both ever use and current use of contraception is greater among urban women than rural women. Differential access to family planning information and services along with other socioeconomic variables may contribute to higher contraceptive practice in the urban areas.

Social Class

--Fertility is low at the high and low ends of the socioeconomic scale and high in the middle and lower class.

--The contraceptive use pattern corresponds to the fertility pattern: usage is higher for the higher and lower social classes than for the middle classes.

--Higher income groups are most likely to be current or ever users of contraception, except sterilization.

--Most sterilization acceptors are from the poorest segments of the population.

Landownership

--A cluster of attributes centering around landownership all contribute to high fertility:

--Economic condition and social standing in rural Bangladesh are measured in terms of landholdings; small variations in landholdings lead to marked differences in social class.

--Landownership is positively related to fertility and inversely related to infant and child mortality; size of landholdings is positively related to fertility.

--Richer parents have more children; their sons start domestic work early, contribute more to agricultural production, inherit land, and maintain control of land. Their sons marry at an early age, and they enjoy the support of their children in their old age. They have a smaller proportion of sons living away from home, and the mean age of sons leaving home is much higher than among the poorest.

--The landowning group enjoys higher social status, derives more benefits from rural development, has a higher stake in the prevailing social traditions and, therefore, rural conservatism, reflecting more religiosity in the traditional sense and rigidity on purdah.

--Unless undermining factors intervene, young girls in the landowning families usually receive only primary education or less.

--The landowning group adds significantly to the total fertility of the country, not only by themselves, but also as a reference group for others.

--Lower fertility and highest acceptance of sterilization are found among the landless and among those not gainfully employed.

--It is hypothesized that the adoption of sterilization among the landless poor may not be a response to modernization or the seeking of better opportunities for self and children, but rather a response to economic hardship. The fear of falling further below subsistence level, or the use of program incentives to cope with immediate economic need, may be what brings about the higher rate of sterilization acceptance among this group.

Education

--Age of marriage is directly related to education.

--As in many countries, there is an inverse relationship between education and fertility. However, when duration of marriage is controlled, women with primary education have the highest fertility. Women with above primary education have the lowest fertility in both rural and urban areas.

--One possible explanation for the relationship of primary education and high fertility is that those who have no schooling and have lowest fertility are the rural poor while those who have primary education are from the rural middle class. (See landownership section.)

--Education for men, by itself, does not have a significant effect on fertility.

--Universal primary education will not, in itself, have much immediate effect on fertility. The numbers of children proceeding to middle and high school, however, will later have a dampening effect on fertility.

--There is a direct relationship between level of education and actual contraceptive use. Women's education is the single most important factor determining the knowledge of clinical methods of contraception.

Employment and Decision-Making Authority

--Working women, whether in rural or urban areas, whether uneducated or highly educated, whether rich or poor, have lower fertility than their non-working counterparts, provided duration of marriage is controlled.

--Employment outside the home and decision-making authority of women in the family (which are intercorrelated with education) are inversely related to fertility and positively to use of contraception.

Religion and Religiosity

--Muslim women tend to have lower education and higher fertility than non-Muslims. Hindus are more frequently educated at higher levels, marry later, and practice contraception more frequently than Muslims.

--Greater religiosity is associated with higher average fertility. Muslims rank higher than Hindus on religiosity.

--Individuals with strong religious values are more likely to (1) be non-adopters of family planning, (2) express a desire for a larger number of children, and (3) actually have a large number of children.

Purdah

--Men claimed more adherence to purdah than the women themselves professed. Muslim men claim more purdah than Hindu men. Muslim women claim more purdah than Hindu women.

--Those not practicing purdah have fewer children and desired fewer children than those practicing purdah.

--Adherence to purdah is negatively correlated with ever-use of modern contraceptive methods.

--Education is inversely related to observance of purdah and, in turn, to fertility. It is hypothesized that by increasing female education, adherence to purdah may be decreased and, subsequently, fertility will be reduced.

Lactation, Nutrition, and Infant Mortality

--Postpartum sterility plays a significant role in this essentially non-contracepting society. Lactational amenorrhea is the prime factor responsible for the prolonged birth intervals.

--High infant mortality acts in competition with lactational amenorrhea, as it interrupts lactation, shortens postpartum amenorrhea, and increases susceptibility to conception.

--Reduced infant and child mortality, by prolonging lactation and, thus, the extension of amenorrhea, should increase the interval between births and in this way, lead to a fertility decline. (Elimination of all infant deaths, however, is estimated to lengthen and average birth interval by only 1.6 months to 37.2 months-- equivalent to reducing fertility by only 4 percent.)

--Alternatively, a program to improve maternal and child nutrition may reduce infant mortality but could possibly lead to the shortening of the duration of lactational amenorrhea by 50 percent or more. This would shorten the birth interval and lead to a corresponding rise in the birth rate.

--Postpartum sterility is associated with socioeconomic status and urban-rural residence: lactational amenorrhea is longer for the lower socioeconomic groups and is longer in the rural areas, thereby somewhat depressing fertility.

--Children born to women with less than primary schooling exhibit twice the mortality rate than those born to women with primary higher education.

--At the aggregate level, communities with a relatively high level of health surveillance showed roughly 25 percent lower mortality than those having a lower level of surveillance

Rural Development, Modernization, and Family Planning

--Village-level education-related factors (proportion of families sending their children to school, mean level of education desired for children, access to educational institutions, presence of a youth club in village) are directly related to knowledge of contraceptive methods.

--Modern agricultural practices are positively related to knowledge of non-clinical methods.

--Development and family planning programs have almost equal contributions to the explanation of village-level contraception, with development having a slightly higher contribution than family planning. The combined effects of development and family planning are greater than the effects of either separately.

--Access to means of transportation, both roads and water ways, is significantly associated with a higher level of contraceptive practice.

--Villages where a family planning worker visited "many" times during the previous year had the highest level of contraceptive practice; no visits or some visits were associated with lower-than-average contraceptive practice in the village.

--Both village access to means of transportation and extent of family planning workers' visits to the village serve as facilitating conditions to individual practice.

--Data available suggest that rural development programs (such as cooperatives, mothers' clubs, rural transportation, youth organizations, schooling, accessibility of village health and family planning services, Swanirvar programs, community development programs with the involvement of the local leadership and people's participation) have considerable potential for bringing fertility declines.

Part IV

DEVELOPMENT OF THE BANGLADESH FAMILY PLANNING PROGRAM

1. THE PRE-INDEPENDENCE EAST PAKISTAN ORIGINS AND LEGACY

Phase I (1953-55): Early voluntary movement. The first attempts to arouse interest and concern over rapid growth were taken by volunteers who, in 1953, founded the East Pakistan Family Planning Association as a regional branch of the National Family Planning Association, which in 1964 would become an affiliate of the International Planned Parenthood Federation (IPPF). This organization sponsored urban clinic-based family planning activities and received only nominal help from the Pakistan government.

Phase II (1955-60): Voluntary activities with government support. The government recognized the population problem and under its First Five-Year Plan allocated a sum of 50,000 rupees (approximately U.S. \$10,000 of PL-480 funds) to the East Pakistan Family Planning Association.

Phase III (1960-65): First national family planning program with budget allocation in the Second Five-Year Plan (1960-65). The government directly involved itself in family planning by setting forth definite objectives in the Second Five-Year Plan and allocating a sum of 30.5 million rupees (U.S. \$3.9 million) to family planning programs. The major objectives were: (1) to establish family planning clinics and distribution centers in existing health centers; (2) to train motivational and clinical personnel; and (3) to promote research and administrative projects in the area of family planning.

Several urban postpartum family planning clinics, family planning training programs for doctors in the existing hospitals, and research and evaluation centers were established through government initiative. Among the latter was the important experiment in rural-based family planning by the Comilla Academy for Rural Development, which achieved a family planning use rate of about six percent of fertile couples in the project area. Simultaneously, the program was administered as a normal function of the existing health services. The Second Five-Year Plan aimed at reaching 10 percent of women in childbearing age, but in the absence of tested contraceptives, adequate field staff, and funds, the program did not reach any significant number of clients. Less than 10 percent of the eligible population visited the clinics and only 9.4 million rupees (of the 30.5 million allocated) was actually spent; acceptance remained below two percent of potential clientele. War with India in 1965 disrupted the program. Methods used in this phase: condoms, diaphragms and cervical caps, vaginal jelly.

Phase IV (1965-70); Expanded program in the Third Five-Year Plan.

This plan contained a more comprehensive family planning program, costing 284 million rupees, which included the following objectives: (1) to make family planning services available to the entire population by 1970; (2) to include training and research as an integral part of the program; and (3) by 1970 to reduce the crude birth rate from 50 to 40 per thousand, the crude death rate from 20 to 15 per thousand, and thus the growth rate from 3 to 2.5 percent.*

Much emphasis was given to expansion and motivational aspects. In 1966 the Pakistani government established an autonomous National Family Planning Board, independent of the health service, which was to implement the program in cooperation with the other relevant government units. Four hundred thana family planning offices were established (one per thana) staffed by one thana family planning officer (TFPO) and supporting office personnel.** Largely illiterate, village-based, traditional birth attendants (dais) were appointed--eventually 25,000 in number--as part-time female workers. To supervise their home visiting, "chief male organizers" (CMOs) were also appointed. By 1968, all hospitals, dispensaries, health centers, and a large number of individual doctors were involved in family planning activities based largely on the newly-introduced IUD (Lippes loop) and sterilization. Nineteen permanent district-level clinics and 345 permanent thana family planning clinics were established throughout the country and a female paramedic, called a "lady family planning visitor" (LFPV), was posted in each thana clinic to dispense conventional contraceptives and insert IUDs.*** Thanas without thana clinics were served by several mobile IUD teams. The 25,000 dais worked on a monetary incentive basis and monetary incentives for doctors were also introduced. Governmental doctors, private practitioners, clients, and recruiters all received per-case cash payments for sterilizations.

During the late 1960s public opposition to family planning became great. Family Planning Association offices were stormed and clinics set on fire. The IUD (Lippes loop) introduced during this period remains unpopular even in 1980. Given the public opposition, and the program's lack of clear policy, weak administration, and lack

*Preliminary 1981 census results made available since the time of this evaluation suggest that these goals may have been obtained in Bangladesh by the end of 1980.

**A thana is an administrative unit comprised of an average of ten unions, 15 to 20 villages, and 150,000 to 200,000 population.

***Forerunner of today's "family welfare visitors" (FWVs).

of full-time fieldworkers, the program had little effect on fertility. The large numbers of vasectomies reported in the late 1960s were later acknowledged to be grossly inflated. By 1968, according to the National Impact Survey, 66 percent of the target couples had heard about some method of family planning but only about seven percent had ever practiced a modern method of contraception and only three to four percent were currently practicing.

Beginning in late 1969 and continuing through 1971 program operations were disrupted by political and military events that culminated in the independence of the People's Republic of Bangladesh in December 1971.

2. THE BANGLADESH POST-INDEPENDENCE PROGRAM

A national family planning program was organized after independence and the First Five-Year Plan promised strong government pressure in order to achieve a decline in fertility to the replacement level by 2000. However, during the two years immediately following independence, the program remained at a standstill due to the immediate requirements of establishing a sovereign government and recovering from the war and to protracted debate within the BDG--first, whether or not to have a family planning program and then whether family planning should remain a unipurpose program or be combined with malaria and smallpox eradication and other preventive health services.* Oscillation between "integrated" and "vertical" programs has slowed down progress in family planning from this time to present.

In 1972 AID began to provide modest family planning support through AID/Washington's centrally-funded intermediaries. AID bilateral support to family planning began in 1973 with the principal short-range objective of introducing the birth control pill on a broad scale and building up an ample in-country stock of contraceptive commodities; this assistance totaled U.S. \$1,524,000 grant funds for two years. In 1974 UNFPA signed an agreement valued at U.S. \$10 million, for three years' assistance for fieldworker training and salaries, warehouse construction, vehicles, and related support.

Phase I: First "integration" attempt. In late 1973, a decision was announced that family planning was to be integrated with health services. The new government's First Five-Year Plan (1973-78) called for a multisectoral population program to produce a decline in fertility to replacement level by the year 2000. The Ministry of Health was renamed the Ministry of Health and Family Planning.

*Apparently, although details are not now easily confirmed, pressure to integrate family planning with health services came from the World Health Organization and was subsequently echoed by the World Bank and some of its associated donors.

The existing Secretary of Health assumed direction of the central units and field structure of the Family Planning Board for this integration attempt.

Nearly 12,000 male workers of the vertical malaria and smallpox program were given several weeks' training in each other's tasks and in family planning. Called "family welfare workers" (FWWs), they began operating in January 1974 as multipurpose workers responsible for delivering rudimentary preventive health and family planning information and contraceptives during their regular home-visiting rounds. At the same time, the network of between 450 and 500 thana and urban family planning clinics, staffed largely by female paramedics, was reactivated after having remained virtually dormant since 1971. Both the training and clinic renovation were funded by AID.

Serious problems arose from the beginning. "Integration" was planned to occur at the fieldworker level only. Above, separate chains of command and separate sources of salaries remained intact at every level. Carried over from the East Pakistan period, the National Family Planning Board, which had bitterly opposed integration, never became fully reconciled to the decision and was less than wholehearted in trying to make it work. Equally important, the FWW training had been inadequate--a serious matter since birth control pills were being introduced into the program for the first time outside the clinical setting. Workers were ill-prepared to give clients reliable information that could satisfy questions, doubts, and fears. Also, they not only had an unrealistically long list of curative and preventive health duties to perform but were frequently called off the job for special assignments such as periodic malaria spraying, intensive smallpox eradication campaigns, disaster relief, election duty, and rice procurement drives. It is little wonder that an evaluation team assessing the program after one year found that family planning was not receiving attention commensurate with the urgency of the population problem.

Phase II: Return to "vertical" program. In January 1975, the government decided to revert to a "vertical" family planning program and split the Health Division of the Ministry of Health and Family Planning into a Health Division and a Population and Family Planning Division. The family planning program was transferred to this division and the ministry was renamed the Ministry of Health, Population, and Family Planning. Three months later responsibility for maternal and child health (MCH) services was also transferred from the Health Division to the Population and Family Planning Division. A National Population Council was formed (chaired by the President of Bangladesh, then Sheikh Mujib), which was responsible for overall policy and program guidance. In April, the government approved the field structure, described below, of the rechristened Population Control and Family Planning (PCFP) Division, simultaneously inserting the word "Control" into the name of the Ministry as well.

The new fieldworker cadre consisted of three women and one man per union, recruited as home-visiting MCH/FP workers--about 18,000 new full-time employees. The women got the title "family welfare assistant" (FWA) and men the title "family planning assistant" (FPA). Their principal qualifications were secondary-level education and established residence in the respective area of assignment. According to this plan, the Health Division's 12,000 or so family welfare workers were to continue to distribute contraceptives during their home visits, concentrating on males as potential acceptors and thus, theoretically, complementing the PCFPD's fieldworkers. The FWAs continued to distribute birth control pills and condoms from their remaining stocks but this was on an ever-decreasing scale and they were disregarded by the PCFP Division.

Vestiges of the erstwhile Pakistani National Family Planning Board (which had managed the vertical program of the Pakistan period and opposed the integration attempt of 1974) were assimilated--on paper--in early 1975 into a new PCFP Directorate, which was to be the implementing arm of the PCFP Division. Formal approval of the new directorate's organizational structure and staffing pattern was issued only nine months later, in September. During the time that had elapsed, however, two program changes had been made.

First, the part-time dais and the "chief male organizers," who still remained on the rolls from the Pakistan program but who had not been used in the post-independence period (an estimated 8,000 and 4,000 respectively), had been reactivated and permitted to distribute contraceptives to homes. However, they had been given no special training on birth control pills, which they had not previously dispensed. Second, it was decided to distribute birth control pills and condoms free instead of continuing to sell them at the nominal prices (orals: three U.S. cents per monthly cycle; condoms: five U.S. cents per dozen) that had been in effect since the inception of the "integrated" program. Whether to charge for contraceptives had long been an issue within the government; the decision to provide them free appears to have been arbitrary and unsupported by any studies.

To recapitulate: the family planning program was dormant from March 1971 through 1973. The integrated program, which became operational in January 1974, and the majority of the new field staff were not recruited and trained until late 1976. Not surprisingly, the Bangladesh Fertility Survey of 1975-76 showed little change in fertility since 1966-68; the 1975-76 estimated total fertility rate was about 6.3 and that of 1966-68 about 6.0. About 82 percent of the respondents knew about family planning, compared with only 66 percent in 1966-68. However, only eight percent of the fertile couples were practicing contraception at the time

of the 1975-76 survey, of which 4.9 percent were using modern and 3.1 percent traditional methods.*

In 1975, AID, through its intermediary, Population Services International, began the nationwide, highly-subsidized commercial sale of "Maya" birth control pills and "Raja" condoms. In 1976, AID funded a second phase of its earlier bilateral project, this for \$15.283 million for three years. Also in 1976, the IBRD initiated its first project--a \$45 million grant-loan package that would continue for five years providing primarily for construction and salaries.

In 1976, the Bangladesh government declared population the number one problem in Bangladesh. The demographic target was revised upward to attaining a Net Reproduction Rate (NRR) of one by 1985 thus containing the population to 120 million by 2000. Menstrual regulation ("MR") was made an official program method. Another major organizational reshifting involving the PCFP Division took place after which it was re-united in the renamed Ministry of Health and Population Control.

In 1977 a nine-week nationwide voluntary sterilization campaign was carried out. 65,000 sterilizations were performed and voluntary sterilization was adopted nationwide as a program method. Ninety percent of the intended fieldworkers (12,227 FWAs and 4,392 FPAs) had by this time been recruited, trained, and posted.

In mid-1979, the program structure was further modified by the merger of the "implementing arm" of the program, the Directorate, with the "policy arm," the Division. This constituted the final absorption, organizationally and on paper at least, of the old extra-ministerial vertical program and its personnel into the ministerial program. Deputy Secretary positions for implementation were established for each of Bangladesh's four geographical divisions, and greater authority was delegated to the district-level administrators by changing their title to that of Deputy Director.

The 1975-79 phase established operational linkages among all governmental and private agencies, and laid out a division of labor. Work in the urban areas was assigned to the existing governmental

*Regarding prevalence of current use, there is some confusion over figures cited in the context of the Bangladesh Fertility Survey. The figure of 8 percent is found in a cross-country summary of 20 developing countries in the World Fertility Survey (International Family Planning Perspectives, Vol. 6, No. 4, pp. 161-162, December, 1980). This summary was compiled from data supplied by WFS headquarters in London. However, the BFS report itself, published December 1978, gives 9.6 percent as current users (5.9 percent modern, 3.7 percent traditional methods; 22.6 percent of urban women, 8.5 percent rural).

hospitals, private clinics, commercial suppliers, and voluntary agencies while the government program concentrated on motivation and service delivery in the rural areas. The program nominally involved the local community leaders and other important opinion makers. The prevalence rate increased from an estimated 8 percent during 1975-76 to 12.66 percent during 1979, with prevalence rates of 30 percent and higher achieved in some areas where intensified projects have been operating.

In 1979 the government target was again revised, this time downward, to attaining an NRR of one by 1990. A second UNFPA project began, this for \$50 million--a commitment that the UNFPA has subsequently had trouble meeting (partly because of its decision to become involved in family planning in China and partly due to its inability to recruit bilateral donors to help meet the commitment), and which may therefore be cut in half.

Phase III: A second "integration" attempt. In early 1980, the government again announced the decision that family planning was to be integrated with health. This was to be accomplished by brief retraining of fieldworkers and by administrative reorganization. Under the new reorganization clinical and non-clinical (or "motivational") activities are to be managed through separate vertical chains of supervision. Specifically, at the thana level and below the thana health administrator (a physician) was placed over the thana family planning officer as a direct supervisor. The health fieldworkers (the "village welfare workers," the primarily malaria/smallpox cadre who were given family planning responsibilities in 1974 but were subsequently ignored) were now to be retrained and again required to provide family planning, along with health services. These health workers were to be supervised by the TFPOs. Health Division physicians were required to provide sterilization services. At the district level, fieldworkers and supervisors continued to report to the Civil Surgeon for matters related to health and to the Deputy Director for population affairs. However, in Dacca, while there are two divisions for formal administrative purposes, there is only one Secretary who is responsible for both health and population matters.

Shortly after the integration announcement, in May-June 1980, family planning fieldworkers staged a two-month protest strike, supported by all levels of field staff earlier involved--most for many years--with the vertical family planning programs. Today some such staff still say they have not "integrated" and are "unable" to do so until they receive more explicit and satisfactory details from Dacca as to how specific "technical problems" (specifically, supervisory and salary relationships) are to be resolved.

This new "integrated" structure is described by some observers as a "zipper that is presently zipped closed above the Secretary level and below the thana level but is broken in between." Where it will be "broken" and where it will be functioning a year from now is difficult to predict.

Program Costs and BDG vs. Donor Contributions

Annual program costs per user have been high. Costs for U.S. fiscal year 1981 are estimated at \$30 per continuous user for temporary methods; sterilization is estimated at \$5 per client. (By comparison, annual user costs for non-governmental organizations are about \$10 per user and for those buying supplies from the social marketing project--see V.5 below--about \$7 per user.)

As the above chronology indicates, Bangladesh's population and family planning program has received large amounts of funding from foreign donors, the three major donors being USAID, whose funding support began already in the 1960s, and the World Bank and UNFPA, which entered the picture in the mid-1970s. At present the program is financed approximately as follows: USAID, 30 percent; World Bank (IDA), 30 percent; Bangladesh government, 20 percent; and UNFPA, 15 percent. Traditionally the Bangladesh government has not contributed significantly to program costs because of the willingness of foreign donors to support this sector. In the national budgeting process, items that are of little or no interest to international funding agencies have the first call on the government's own resources. Population is an area in which external funds have been abundantly available. The government has been committed to the program financially, however, even though it has not had to expend large amounts of its own resources and even though it is difficult to isolate precisely the portion that it has financed. Recently--in June, 1980--the government began to assume financial responsibility for the salaries of 8,000 family welfare assistants (initially funded by the World Bank), which can be taken as a concrete illustration of its commitment to assume costs of parts of the program originally financed by donors.

Part V

DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This section of the report presents, to the extent possible, the data and analysis on which the conclusions and recommendations stated in Part II above were based. Two tracks of investigation pursued in the evaluation are revealed here deriving from the two somewhat different agendas on which the evaluation was premised. (See Appendix C.) On the one hand, the evaluation sought to understand the effectiveness with which AID has assisted family planning efforts in Bangladesh. On the other hand, the evaluation simultaneously sought to serve as a case study which could contribute to the general state of knowledge as to factors explaining family planning program effectiveness. It was taken as a general working hypothesis that country-to-country differences in the effectiveness of a national family planning program are attributable to three major factors: political commitment, administrative effectiveness, and socioeconomic and cultural factors.* Thus some subsections of this part of the report focus just on findings regarding these three factors as they presently play themselves out in Bangladesh, but make no observations about AID performance. Other subsections, in contrast, focus on evidence specifically related to AID performance.

1. IMPACT OF THE BANGLADESH FAMILY PLANNING PROGRAM

Impact on Growth Rate and Prevalence. Ultimately a successful population and family planning program is one that produces a positive demographic impact--that is, an actual reduction in the annual population growth rate. Efforts in Bangladesh have not yet resulted in a reduced annual growth rate. Recognizing the problematic nature of demographic data in Bangladesh (see Part III.3 above), achievements have been made, however, in terms of intermediate indicators. Prevalence of contraceptive use among married couples of reproductive age has increased from approximately 8.3 percent in 1975-76 to about 13 percent in mid-1979, a rise of about 1.5 percentage points a year.** The crude birth rate

* See Bernard Berelson, "Prospects and Programs for Fertility Reduction: What? Where?" Population and Development Review, Vol. 4, No. 4, December, 1978; and Steven Sinding et al., Family Planning Program Effectiveness: Report of a Workshop, A.I.D. Program Evaluation Report No. 1, December, 1979.

**Since the evaluation was completed, the USAID-supported Bangladesh Contraceptive Prevalence Survey (conducted by Westinghouse in fall, 1979) reported a national prevalence figure of 12.66 percent (urban women 21.1 percent and rural women 11.7 percent). Of these three figures, use of modern methods was reported as 8.9, 17.0, and 8.0 percent respectively. Survey conclusions were based on a sample of 15,481 ever-married women, between ages 15 to 49. (See Westinghouse July-December 1980 report).

is estimated to have declined during this time from 47 per 1000 to about 44 per 1000, making for an estimated 2.4 million births averted during 1976-80.

It is reasonable to believe that the population and family planning program is one of the leading causes of the decline. Promotional activities have made over 90 percent of couples aware of modern contraceptive methods and there is considerable evidence of latent demand (especially for more permanent methods among high-parity women) and thus of a greater program impact. Greatest evidence of this is the achievement of prevalence levels of over 30 (and perhaps as high as 50) percent in catchment areas where intensive and innovative community-based distribution projects have been launched, which demonstrates that much more can be accomplished with the right mix of inputs--supervision, training, community participation, and commodity support.

Fertility Rates. No sustained trend, either up or down, in fertility is evident from the early 1960s to 1975. In most years the total fertility rate was within the range of 6.8 to 7.3 and the crude birth rate was between 47 and 51 per thousand. The absence of any obvious trend does not mean that fertility was constant. On the basis of apparently quite reliable birth registration data for one area of rural Bangladesh, fertility in the area was particularly low in 1975, after the 1974 famine, but recovered in 1976 and 1977. Sharp fluctuations in national fertility rates also doubtless occurred in some years in response to natural disasters or political upheavals. It is therefore likely that average fertility over a period of several years may have been lower when the years in question encompass floods, small crops, and wartime disruptions; but there is no indication of tangibly lower fertility in recent "normal" years. The limited information on regional differentials suggests that there are no substantial differences in fertility from one administrative division to another. As noted above, marriage historically has been early and universal for women; the recent tendency toward slightly later marriage has had only a relatively minor effect on overall fertility.

Information on children ever born is reasonably consistent, although all the sources available show a tendency among older women to underreport their parity; average parities for younger women show almost no change between 1961 and 1975. Dual-record survey estimates of fertility for 1964-65 (considered more reliable than those for the whole survey period 1962-65) are very consistent with adjusted retrospective estimates obtained from the 1974 survey data, the total fertility rates being 7.1 and 7.2, respectively.

Knowledge, Attitudes, and Practice ("KAP") of Family Planning. There has long been widespread knowledge in Bangladesh of modern family planning methods but the gap between knowledge and actual practice has remained great, as shown by the figures in Table 4.

<u>Knowledge and Use of Modern Contraceptive Methods*</u>		
<u>Years</u>	<u>Knowledge of Modern Methods</u>	<u>Continuing Use Of A Modern Method</u>
1966-68	66 percent	4.0 percent
1975-76	82 percent	8.3 percent
1980	Over 90 percent	8.9 percent

Although no national-level data exist on reasons for not practicing family planning, sub-national "KAP" surveys have revealed the following reasons:

Want more children	47 percent
Harmful to health	21 percent
Desire large family	14 percent
Against religion	11 percent
Elders disapprove	9 percent
Have only daughters	9 percent
No knowledge of methods	3 percent

Because the perceived value of children is far greater than the cost of raising them, the number of children people want is high. Mead Cain reports from his village study in Mymensingh District, for example, that "Male children may become net producers as early as age 12, compensate for their cumulative consumption by age 15, and compensate for their own and one sister's cumulative consumption by age 22."** Almost all parents expect financial support from their children and about two-thirds of all parents depend solely on their children for support in their old age. As might be expected, a very strong sex preference exists for sons.

*Sources of data: National Impact Survey of 1966-68, Bangladesh Fertility Survey of 1975-76, and Westinghouse Contraceptive Prevalence Survey of 1979.

** Mead Cain, "The Economic Activities of Children in a Village in Bangladesh [Char Gopalpur]," Population and Development Review, Vol. 3, No. 3, 1977, p. 201.

2. POLITICAL COMMITMENT OF THE BANGLADESH GOVERNMENT TO FERTILITY CONTROL

When examining the political commitment of any national government to population and fertility control, the logical starting place is an assessment of policy. In Bangladesh, the objective of reducing fertility as quickly as possible has been clearly articulated, legitimized, and largely internalized at the topmost levels of government--in the Office of the President, the Planning Commission, and in the Ministry of Health and Population Control.

A newcomer to Bangladesh is immediately impressed with the unequivocal commitment to rapid fertility reduction expressed by the nation's highest leadership. President Ziaur Rahman forthrightly and frequently addresses the need for more effective family planning, often three or four times a week in public appearances throughout the country as well as in official statements. (If President Sadat of Egypt or President Marcos of the Philippines, for example, would once a year issue the kind of call to action which President Zia voices weekly, it would be regarded by their respective bureaucracies and citizenries as a "shining green light" to proceed vigorously to curb population growth.) Among the leaders of AID-assisted countries, Zia's personal expression of commitment is, by all signs, matched only by that of Indonesia's President Suharto.

This kind of commitment is also evident within the senior ranks of the Planning Commission and the Ministry of Health and Population Control where the macro prospects and problems of economic and social development loom in clear focus. Bangladesh in fact is the only country in the world that actually includes the term "population control" in the name of a ministry charged with implementing population programs. (Next closest would be India's Ministry of Health and Family Planning established in 1969.)

The following excerpt from the Second Five-Year Plan, 1980-85, Sectoral Plan for Population, provides the substance of Bangladesh's population policy today:

Any meaningful population strategy must involve the notion that fertility will decline drastically and that decline cannot be delayed. Thus, the only recourse open to us is to vigorously pursue the policy of achieving $NRR=1$ by 1990. Experiences of other countries faced with similar circumstances show that such drastic reduction of fertility has not been achieved. But only by tracing a path that might appear today unachievable, can we hope to provide a future that has some sense at all. Certain unique factors present possibilities for a vigorous and successful population programme. These are:

- (a) Population problem has been recognized as the number one problem of the nation and family planning programme has gained highest political support;

- (b) The government has committed itself to allocate required resources for population control activities along with agriculture and energy sectors;
- (c) The land-to-man ratio has led to such a critical condition of extreme poverty that majority of people become compelled to control fertility for sheer survival;
- (d) People seem to be ready for rapid change, social mobilization, economic development, and fertility control; and
- (e) Studies show that there is an unmet demand for family planning to the extent of 30-40 percent of the fertile couples.

The nation is faced with the challenge of meeting these unique opportunities with a vigorous, pragmatic and unconventional population policy with a view to achieving this optimistic population target.

The policy articulated above ranks, with that of the People's Republic of China, as the most forthright, vigorous, and ambitious of any nation in the world. Conservative and traditional opposition to family planning and fertility control, although still much evident in the countryside at a local community level, no longer appears to be a factor inhibiting the formulation of national population policy. Also, the opposition parties have not made an issue of the need for fertility control. It must be acknowledged that this represents a major accomplishment of the BDG leadership.

In spite of the well-articulated and repeatedly emphasized policy of the president, however, a comparable commitment is yet to be widely internalized throughout other parts of the government including even the Ministry of Health and Population Control. Efforts are underway, however, to engage those ministries which are in a position to be particularly supportive. These include the Ministries of Agriculture, Education, Information and Broadcasting, and Home Affairs. The service structure of the Ministry of Health and Population Control, although increasingly strong and better staffed, is not yet fully "energized" to carry out the ambitious task set for it by the central government.

USAID, the Embassy, and AID/Washington should continue to provide sympathetic and reinforcing support for senior policymakers in the Office of the Presidency, the Planning Commission, and Ministry of Health and Population Control in their efforts to maintain a strong fertility control policy, and should strive to develop means to increase and reward this commitment. In particular, USAID should consider offering modest technical assistance to the government in conceptualizing and implementing social support

measures in "beyond family planning." Of particular importance would be to test, beginning within the next two years, some of the more promising concepts of social support such as community incentives and the cooperation of other government agencies dealing with rural people to provide reinforcing support to the population program.

Legal Status of Birth Prevention Methods

The legal situation relating to the practice of family planning is remarkably consistent with and supportive of the policies and goals outlined above. There are no legal or regulatory constraints to the importation or use of modern contraceptives. Oral contraceptives are not a prescription drug and all categories of personnel are permitted to issue pill supplies to women using the pill. Voluntary sterilization is legal and paramedical personnel are authorized to insert IUDs. An anti-abortion law passed during the British colonial period remains on the books but is seldom if ever enforced; legislation has been drafted that would legalize abortion and even now menstrual regulation (see V.11 below) is an established and one of the more enthusiastically accepted methods of birth prevention made available by the national program.

3. EFFECTIVENESS OF THE GOVERNMENT PROGRAM

It is in the implementation of ambitious policies, however, where the constraints and challenges of program management must be confronted. In one sense it is a remarkable achievement that Bangladesh, a country only nine years old, can boast of having a full-fledged national family planning program characterized by a nationwide network of clinics and family planning centers, the availability at one or another service center throughout the country of virtually all forms of modern contraceptive methods, a nationwide corps of some 49,500 fieldworkers trained and paid to provide family planning services, and a national headquarters with organizational units established to handle all the needs of a modern family planning program.

Until now, however, implementation of the program has been weak, disrupted by bureaucratic changes, characterized by poor supervision and training, and thus has produced only the very modest gains already discussed above. Frequently, the overall implementation of birth control efforts in Bangladesh is characterized by Bangladeshi and foreign observers alike as "lethargic," "soft," and "not energized." Indeed, the family planning program has been compared to a rural electrification effort in which "the poles are up, the wire's in the air, and the generators are all installed but nobody's been able to get the switch turned on." It is widely stated by veteran observers of the family planning program that "the fieldworkers simply don't work." The following field observation gives an indication of what this means at the village-level where the majority of "target acceptors" live:

"While sitting in our informant's small hut, we noted that there was a card on the wall and asked to see it. It was a family planning worker visitation card which records the number and frequency of visits. We then asked our informant what the card was. He answered that he was not sure but that he was required by the 'government' to keep it and show it upon demand to people who sometimes come to the village. He says that people stamp the card when they come.

When asked if these visitors who ask to see the card ever give them contraceptives, he replied no and said that they rarely stay long and say very little when they are at his house. (He apparently associates the family planning card with some sort of official function but is unaware of any connection with family planning). We asked if he has ever used any contraceptives; he said no."*

*William H. Jansen, Profiles of Poverty in Bangladesh: A Preliminary Report, USAID/Dacca, December 1978, p. 31.

Judging Effectiveness

Standards for judging the effectiveness of any national family program could be one of three: (a) performance in comparison to family planning programs in other countries, (b) performance in comparison to other national programs in the same country, or (c) performance in terms of the goals set forth for the program by the country's government. All such judgments are rendered difficult, however, by the lack of reliable Bangladesh data for either population control and family planning or for other sectors (see III.3 above). At the present there is no functioning management information system in the Bangladesh population program and thus administrators and donors alike are forced to depend largely on visual inspection and anecdotal evidence in efforts to assess and evaluate the effectiveness of program operations.*

Ideally, three types of data are necessary to fully evaluate the effectiveness of a population and family planning program: data on client response to the availability of contraceptive services, data on fieldworker performance, and data on contraceptive logistics. These types of data can be collected through the following types of information systems: contraceptive prevalence surveys, client record systems, and contraceptive distribution voucher systems. A contraceptive prevalence survey was conducted in fall of 1979 (initiated and funded USAID and conducted for AID by Westinghouse) from which final results are still pending. A workable contraceptive logistics monitoring system has been developed (assisted in large measure by USAID logistics staff and USAID-provided short-term technical assistance personnel) but this has yet to provide fully accurate information. A client record system has not yet been established and, based on experience in other countries, would almost certainly prove too costly and difficult to administer to justify the marginally more detailed information it should yield.

Nevertheless, based on what evidence is available, in terms of (a) above, family planning program performance in Bangladesh falls well below that of many other Asian countries--not only the Philippines and Thailand, for example (which are characterized by the much higher socioeconomic levels conducive to lowering fertility), but also Indonesia, where a carefully implemented national family planning program has been able to overcome the socioeconomic and cultural factors generally associated with high fertility. Family planning program performance in Bangladesh, as measured by the

*Plans are underway for a World Bank-supported management information system but the present design for this system (including the advanced computer technology required by it) appears far too sophisticated to prove workable in Bangladesh at any time in the near future.

indicator of prevalence, nevertheless does surpass that of other neighboring AID-assisted countries such as Nepal.

In terms of (b) above, both Bangladeshis and foreign residents who were queried as to the relative effectiveness of one BDG national program versus another were not able to clearly identify any one program that is or appears to be more effective than the family planning program and generally ranked it among the top two or three programs. (The Integrated Rural Development Program was also frequently named.) Finally, in terms of (c) above, the official goals that the BDG itself has set forth for the program, performance is woefully inadequate.

Reasons for the less than hoped for performance include those constraining any BDG program and those handicapping the family planning program in particular.

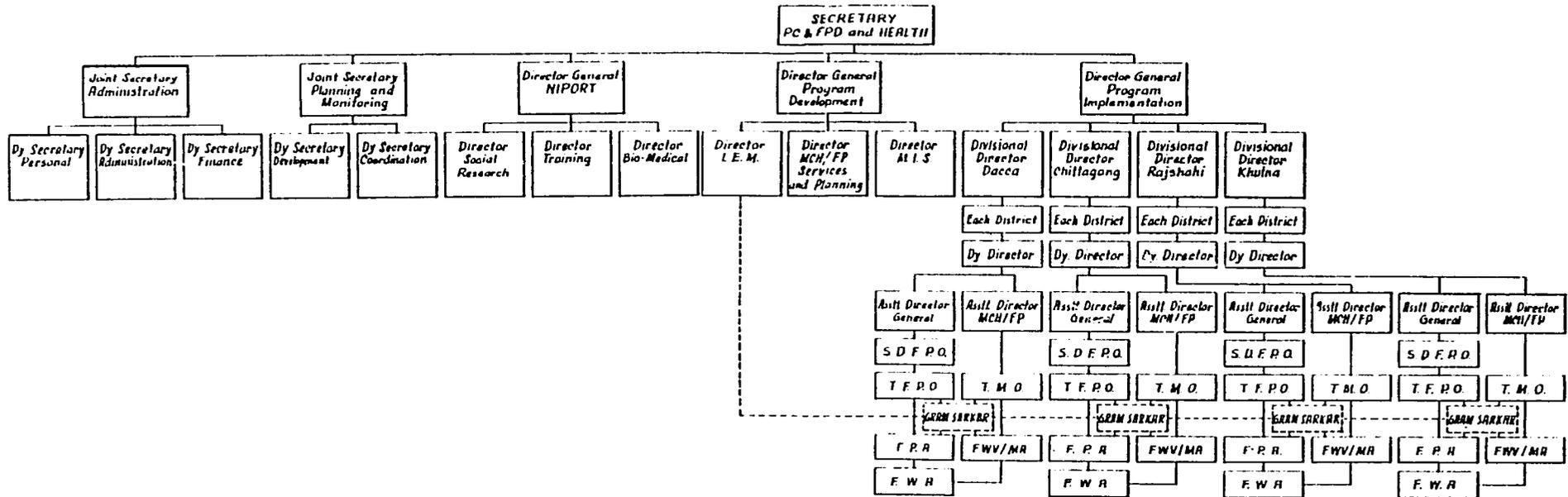
Reasons Constraining BDG Programs in General

Poor administrative capability. Essential to understanding why these present-day implementation problems persist is an appreciation of both the history and capacity of the entire public administration sector in Bangladesh, dating primarily to its long period of colonial rule, already outlined in part III above. Regarded by the British Empire as a rural hinterland good only for raw materials, cheap labor, and agricultural production, the history until partition from India in 1947 was largely a history of neglect. Until then, in addition to British colonial civil servants, local officials were typically Indian Hindus. With partition, most of the Indian Civil Service Hindus left what is now Bangladesh to be replaced largely by Punjabis from West Pakistan to which the seat of government and power had shifted. During the war for liberation in 1971 and immediately afterward, the Punjabis, too, departed, leaving behind a thin veneer of senior administrative talent barely large and deep enough to run the new country. To make this situation worse, large numbers of both the government elite and senior academics were either driven out or killed during the short but intense war. It is in this context, then, that the capacity of the BDG to implement any nation-wide development or social change program, including population control, must be judged--and understood. As one senior development specialist observed: "We're dealing with a country where precious little works. The fact that the family planning program doesn't perform well shouldn't come as any surprise."

Staffing problems. One ramification of this general administrative picture is long delays and numerous difficulties in filling key ministerial and other central-level positions in Dacca (see Chart 1) with competent personnel. By way of example, the entire training component of the population program, which is essential to its

Chart 1

Organization Chart of National Family Planning Program*



(* = 1980 pre-integration structure; under re-organization.)

effective functioning, has been severely handicapped by precisely this problem. To illustrate, in early 1979 the UNFPA agreed with the BDG to provide technical assistance for the training and re-training of family planning fieldworkers. The agreement called for the Ministry of Health and Population Control to hire 12 "trainers of trainers" and for UNFPA to contract for foreign technical expertise. This the UNFPA did in the summer of 1979 with one contract advisor arriving in-country in August 1979 and two others in February 1980.* Even as of November 1980, however, the Ministry had not yet hired any of the 12 trainers of trainers and only in October did it even finally approve the first two of the 12 positions.

Likewise in the field--at district and division levels and thana health centers (see Charts 1 and 2 as well as Table 5)--many positions remain unfilled. In other cases, because key appointments have not yet been made, certain individuals concurrently hold down multiple positions. In Sylhet district, for example, the Deputy Director for Family Planning presently holds four other positions simultaneously, these being Acting Assistant Director for General and IEM**, Assistant Director for Maternal and Child Health, Principal of the Family Welfare Visitor Training Institute, and medical doctor on the sterilization mobile team. Thana-level facilities in Sylhet are similarly shorthanded with only 11 of the 32 thanas having the program-required physician referred to as the "thana medical officer" (TMO).

Finally, it is important to bear in mind that, while population has been designated a top priority at the highest levels of the government, no exceptions to the normal civil service rules and regulations are made for population personnel to help overcome the obstacles that stand in the way of meeting the national fertility reduction goals. Salaries for population personnel are the same as those prevailing throughout the rest of the federal apparatus and likewise the main criterion for promotion is not merit but seniority. The population program as a result frequently loses talented and foreign-trained personnel both to other government agencies and to the larger number of international organizations operating in Bangladesh, the latter being able to provide greater financial and career benefits that the national population program cannot match. In one sense this would not be such a great loss to the program if the positions they took up were still within the population field, but very often they are not.

* UNFPA contract with the Western Consortium of Schools of Public Health (University of California at Berkeley, UCLA, University of Hawaii, and University of Oregon).

** "General" refers to one of several somewhat questionable divisions of labor in the program. IEM = information, education, and motivation.

Chart 2

INTEGRATED HEALTH-FP-MCH SERVICES AT PEOPLES LEVEL
PROPOSED ORGANIZATION AND PROBABLE LINKAGE

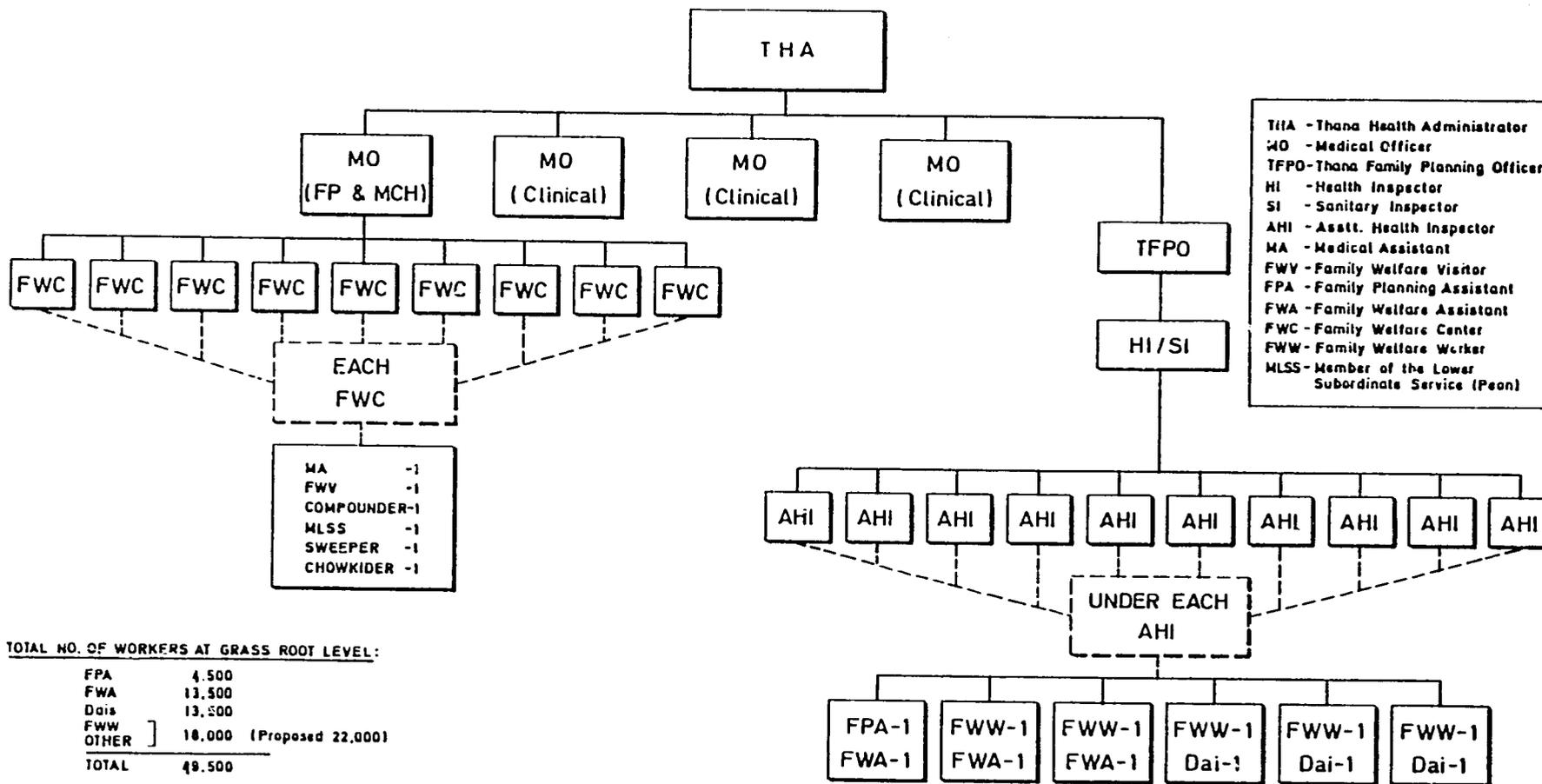


Table 5

**Partial Profile of Personnel Involved In BDG
Family Planning Program at Thana Level and Below**

<u>Category of Health Personnel</u>	<u>Basic Qualifications</u>	<u>Number and Level of Assignments</u>	<u>Major Functions</u>	<u>Specific Relationship with Others</u>
Medical Officer for MCH/FP	Medical graduate	1 at Thana Health Complex	<ul style="list-style-type: none"> a. Oversee the operation of MCH/FP unit, including a maternity ward at Thana Health Complex; b. Perform male and female sterilization, IUD insertion, menstrual regulation; c. Technical supervision of the operation of Union Family Welfare Centers (FWCs); and d. On-the-job training of FWVs, FWAs and FWAs. 	Works under the functional supervision of the Thana Health Association, and works closely with Thana Family Planning Officer. He will be deputized as Medical Officer to the PCFPD by the Health Division.
Family Welfare Visitor (FWV)	10 years general education with 18 months training (females)	2 at Thana Health Complex; 1 at Union FWC	<ul style="list-style-type: none"> a. Institutional and domiciliary delivery attendance; b. Pre- and post-natal care; c. Child health care; d. Immunization; e. Family planning consultation, distribution of contraceptives, IUD insertion, and menstrual regulation; f. Simple medical care; g. Supervision of FWAs and TBAs. 	At Thana Health Complex and FWC, the FWV will be supervised by the Medical Officer MCH/FP. At Union FWC, FWV will work with the Medical Assistant.
Medical Assistant (MA)	10 years general education with 2.5 years basic training, including 6 months internship (the first group of new graduates will be available by May 1979 (males)	2 at Thana Health Complex; 1 at Union FWC	<ul style="list-style-type: none"> a. Treat common diseases; b. Intensive care of cholera, smallpox, diarrhea diseases; c. Dressing and elementary dispensing services; d. First Aid services in medical, surgical and obstetrical emergencies; e. Minor surgery; f. Male sterilization; g. Refer patients to Thana Health Complex and follow-up cases referred by Thana Health Complex; h. Immunisation; i. Participate in environmental sanitation activities; and j. Technical supervision over FWAs. 	At Thana Health Complex, the MA will assist Medical Officer in medical care and will be supervised by Medical Officer at THCs. At Union FWCs, MA will work with the FWV in operating the FWCs.
Health Inspector	10 years general and 1 year of basic training	1 per thana and 1 assistant per union	<ul style="list-style-type: none"> a. Communicable disease control; b. Environmental health; and c. Supervision of FWVs. 	
Family Welfare Assistant (FWA)	8 or 10 years general education with 4 weeks basic training (female)	3 per union	<ul style="list-style-type: none"> a. Regular household visiting; b. Educate and motivate couples for family planning practice; c. Distribute contraceptives; d. Education in MCH; e. Participate in immunization services; f. Referral and follow-up of clinical contraceptive acceptors; g. Assist in first aid; and h. Recording and reporting. 	Receives technical supervision from the FWVs at Union FWCs and administrative support from the Union PPA. Works closely with the Health Division's FWV.
Family Welfare Workers (FWW)	12 years general education with 2 to 3 months basic training (male)	3 per union	<ul style="list-style-type: none"> a. Regular home visits; b. Intelligence activities on acute communicable diseases; c. Case findings and follow up of malaria, tuberculosis and leprosy cases; d. Health education, environmental and food sanitation; e. Promote clean water supplies; f. Assist first aid; and g. Recording and reporting of vital events. 	Receives supervision from the Assistant Health Inspector at union level (relationship with MA at Union FWC has not been specified yet). Works closely with PC, PCFPD's FWA.
Traditional Birth Attendant (TBA)	selected	1 per village	<ul style="list-style-type: none"> a. Attending home deliveries; b. Educate and motivate couples for family planning practice; and c. Distribution of contraceptives to continuous users. 	
Family Planning Assistant (FPA)	12 years education, with 4 weeks basic training	1 in each Union	<ul style="list-style-type: none"> a. Oversee FWAs activities; b. Motivate male population; c. Distribute contraceptives; d. Recruit and follow up vasectomy cases; and e. Compile service statistics. 	Reports to Thana Planning Officer
Assistant Health Inspector	Promoted from FWV	1 in each Union	Oversee FWAs activities	Reports to Thana Health Inspector

Managerial turnover is also high because of frequent transfers of civil servants at the national headquarters level and of civil service doctors at the field level. During 1978-79, for example, 165 manager-level population staff were transferred to other posts, a turnover rate of 14 percent.* This rapid turnover has included the top positions as well. From 1974, when the program officially began, until 1977 it was headed by two different ministers, three different secretaries, and five different chiefs of the implementing bodies (the Family Planning Board or its successor, the PCFP Directorate)-- a state of management flux that has contributed significantly to difficulties in following through with a vigorous, consistent program strategy.

Salary and stipend delays. Related administrative problems stem from the fact that many personnel do not regularly receive their salaries or specified stipends (per diems) in a manner conducive to stimulating enthusiastic service on the part of the individual employee. For example, some of the staff of the National Institute for Population Research and Training (NIPORT) have not been paid in the last 11 months. In addition, stipends of trainees attending NIPORT sessions frequently are not paid until after trainees have returned home. Given low government salaries and the general poverty from which many of the trainees come, this imposes undue hardship on those who must struggle to finance costs out-of-pocket while attending the training sessions.

Poor infrastructure. Also relating to poor administrative capacity are constraints imposed by the poor infrastructure, specifically in the area of transportation and communications (see part III.1 above). Lack of roads, or where they exist their poor condition or the lack or infrequency and inconvenience of public transportation on them, makes it difficult for either fieldworkers or supervisors in any national program to make frequent visits to villages in their areas of responsibility. Likewise, the relative lack in rural areas of such amenities as electricity, local broadcasting stations, audio-visual supplies, and means for graphic reproduction make it much more difficult for fieldworkers in Bangladesh than in, say, a country such as the Philippines, to launch any effective public information program. What the general difficulty of travel in Bangladesh means for the family planning program is that it frequently takes a long time for fieldworkers to reach their destinations, many being reachable only on foot, and that many become inaccessible during the rainy season. Resultant problems include infrequent and irregular service by fieldworkers, infrequent supervision of fieldworkers by supervisors, and a preoccupation among staff at various levels with wanting monetary "incentives" to compensate for time and effort invested in travel-- as if this were not part of their regular job.

*M.A. Satter and M. Alimullah Miyan, "Management Development in Family Planning: A Case Study in Bangladesh," Centre for Population Management and Research, Dacca University, 1980, pp. 26-27.

Lack of public or community service orientation. Veteran observers also point out that, given Bangladesh's environment of widespread poverty, scarce resources, and a historically deeply-entrenched feudal system, the average Bangladeshi must struggle rather selfishly to survive, let alone get ahead, and is thus little inclined either by cultural tradition or present circumstance to engage in other-oriented activities. As one research study notes, "In keeping with...the absence of effective government administration, depradation rather than philanthropy and conflict rather than consensus characterize rural society."* "You can't get ahead in Bangladesh without stepping on someone," remarked another seasoned Bangladesh hand. "The family planning program is asking people to sacrifice to get ahead, but Bangladeshis can't think about the general good when they're living so close to the margin. 'Committed bureaucrats?' How committed can you be when you're so impoverished?" Even among that significant proportion of family planning workers who are sons and daughters of the landed rural elite it appears that few are imbued with any sense of purpose or urgency either to help others in the community which they have been recruited, trained, and paid to serve or to feel any identification with the national goal and need to reduce population growth.

It is hypothesized by some family planning specialists that traditional, village-based, mutual-aid structures (such as the gotong royong in Indonesia**) are essential building blocks for family planning program success and that the absence of such clearly-defined traditional mutual-aid systems in countries such as Pakistan and Bangladesh is a major obstacle to progress in family planning programs. Whether this is definitively the case or not still needs to be established, but it should be noted that fieldworkers and other personnel in many of the smaller private-sector or even government family planning programs operating in Bangladesh are very much characterized by a strong and even compassionate public and community service orientation.

Examples of these smaller programs characterized by dedicated, service-oriented staff (and achievement of prevalence levels ranging from 25 to 40 percent) include the various projects managed and staffed largely by women--such as Concerned Women for Family Planning (see section V.5 below)--as well as some of the government-

* Mead Cain and A.B.M. Khorshed Alam Mozumder, "Labor Market Structure, Child Employment, and Reproductive Behavior in Rural South Asia," Population Council Center for Policy Working Paper No. 56, New York, 1980.

** See James R. Heiby, Gayl D. Ness, and Barbara L.K. Pillsbury, AID's Role in Indonesian Family Planning: A Case Study with General Lessons for Development, AID Program Evaluation Report No. 2, Washington, D.C., December 1979, p. 30.

sponsored Swanirvar or, possibly, "ZPG" projects. "Swanirvar" (meaning "self-reliance") refers to a government family planning scheme recently launched in some 1,400 "swanirvar" villages. Its strategy is to mobilize local community participation and resources to increase production and income in support of accelerated fertility reduction. According to one recent survey, the number of family planning acceptors in the 10 swanirvar areas surveyed was 20 percent higher than the national average. The "ZPG" (Zero Population Growth) Project is another integrated community development and population control scheme also designed with the specific aim of bringing about specific socioeconomic changes to sharply cut the population growth rate. Implemented in 27 unions spread over five rural areas with a total population of 448,000, the project claims a rate of family planning acceptance 150 percent higher than the national average rate and a decline in the annual population growth rate to below 2.0 percent in the project areas in contrast with the national average of 2.8 percent.*

Administrative Problems Specific to the Population/Family Planning Program

Administrative shortcomings and problems specific to the population and family planning program include interruptions and morale problems stemming from the decision to integrate the health and family planning systems, over-centralization of the family planning program, an inadequately developed family planning information, education, and communication component, program targets and goals that are both unrealistic and misunderstood, logistical difficulties, poor training and supervision at the field level, and the consequent ineffectiveness of the service delivery personnel. (Items not discussed here in detail are elaborated upon in sections V.7 to V.13.)

Interruptions and morale problems caused by move to integration.

Whether population and family planning should remain a vertical program, as was the case in its earliest days, or be integrated with the presently weak national health service has probably been the most hotly contended issue facing the program through its history. As detailed in Section IV above, pro-integration forces succeeded in launching an attempt in 1974 to merge the vertical family planning program with the nation's health services, but failed to achieve the desired integration at which point

*M.A. Sattar and M. Alimullah Miyan, "Management Development in Family Planning: A Case Study of Bangladesh," Dacca University, Centre for Population Management and Research, June 1980, pp. 11-12. On the ZPG project, see also Anwarullah Chowdhury, "A Study of the Less Expensive Family Planning Service Delivery System," Dacca University, 1979, which reported a prevalence level of 27 percent in the ZPG areas surveyed.

the program officially reverted back to a vertical structure. In April, 1979, a new agreement was signed to integrate the family planning--or, more accurately, the MCH/FP services--with health services.*

Under the new scheme, integration was originally scheduled for July, 1981. News of the plan led to widespread disruptions in field activities and eventually to a nationwide protest by the family planning fieldworkers. At the end of the fieldworkers' strike in June, 1980, the government announced that the integration of family planning and health services at the thana level and below, originally scheduled for 1981, was to be accomplished a year ahead of schedule. At present, however, family planning fieldworkers are still responding negatively to the integration plans. Some are outspokenly critical, but begrudgingly carry out central directives. Others ignore the directives, saying it is impossible for them to implement such directives until further matters (such as supervisory relationships and salary problems) are solved. Still others say they have not yet received clear directives and so proceed in accord with the old vertical structure.

Plans for the new integrated field structure specify that the integrated health, family planning, and MCH services are to be organized at the thana level under the supervision of a thana health administrator (THA) who supervises three medical officers ("TMOs") for clinical work and one medical officer for family planning and MCH ("TMO-FP/MCH"). Under the medical officer for family planning and MCH are found family welfare centers ("FWCs"), approximately one per union, staffed by a medical assistant ("MA") and a family welfare visitor ("FWV"), a male. Also under the thana health administrator is the thana family planning officer ("TFPO") who supervises the non-clinical side through ten assistant health inspectors ("AHIs"), one per union. (Each union is about 15 square miles and has a population of about 20,000.) Each assistant health inspector supervises about six two-person teams (or one per ward or one per 3,000 to 4,000 population). These two-person teams are made up of a male family welfare worker ("FWW"), who works on health and a female dai or female family welfare assistant ("FWA"), who are the lowest level family planning workers. What is unusual about this organizational structure is that the line of supervision through the thana health administrator does not go through clinical to non-clinical services in a single chain of command but in parallel chains through the medical officers for clinical MCH and family planning activities on the one hand and through the thana family planning officer to the non-clinical health and family planning workers on the other.

* Maternal child health (MCH) services have been included with family planning services for a number of years. MCH is thus generally regarded, in the context of BDG health and population thinking, as part of family planning rather than as part of "health" per se (the latter being more specifically curative and other medical services for the general adult population).

Centralization. In the area of decision-making and management control, the national population program is highly and constrictingly centralized, a situation that stifles progress. Except in areas where special intensified projects are being implemented (e.g., the Swanirvar projects), field personnel are not encouraged to take initiatives to tailor activities to local conditions or to otherwise experiment with innovative schemes that could result in higher levels of continued contraceptive use. Nor do they have funds to use for such purposes. Rather, field personnel display attitudes of being soldiers ordered to carry out orders from on high over which they display little understanding, interest, or enthusiasm. Personnel of various levels who were interviewed during the course of the evaluation commonly spoke of their activities in terms of what they were directed to do via government "circulars." It appears that they do not take actions that are not required by and spelled out in such circulars, and otherwise dictated by higher authorities, and that even then they do not necessarily take the actions specified.

Centralization was clearly essential in the earlier years of program development when personnel were first being deployed to the field. Now that those persons have been there for some time the continued high degree of centralization appears a barrier to progress and a major reason for the widespread apathy and poor performance among field-level staff.

The government itself has recognized the need to decentralize administrative, financial and program management powers to the field by enhancing the status and capabilities of the district-level organization, but there is little clear evidence that much progress has been achieved in this regard.*

Ineffectiveness of service delivery personnel. A consequence of the above-mentioned factors is that, in general, the service delivery personnel now deployed throughout rural Bangladesh and upon whom the program depends for both meeting and stimulating demand do not perform effectively. While some are hard working and motivated, they appear to be the exception. Many if not most field personnel, it is said, hardly work at all but by and large consider they have met the requirements of their job simply if they have shown up or are able to sign the record sheet saying they have been on duty on a daily basis. Not infrequently, it is pointed out, fieldworkers submit to their supervisors falsified records of visits they have

* Decentralization was one of the major recommendations made by a government-sponsored study of the Population Control and Family Planning Program conducted in 1977 by the International Committee on Management of Population (ICOMP). The decentralization recommendation was accepted by the government body officially charged with reviewing the study for implementation.

purportedly made to villages and households in their areas of responsibility; instances are also pointed out of supervisors accepting bribes from fieldworkers in exchange for accepting such falsified reports. Admittedly, some of the reasons for this situation have to do with traditional culture, with the nature of the civil service bureaucratic system, and with the poverty of the country. In addition to reasons already above mentioned above, the inadequate training given to the field staff is a major contributing factor (see section V.10 below), along with the fact that job descriptions for each category of worker contain unrealistically long lists of tasks to be carried out with little clear priority set forth among them. Compounding this is the fact that supervision is apparently only marginal at best, consisting in many cases of only the collection of reports (such as the number of days worked during a given time period), with little genuine support for or discussion of the priority tasks for and problems encountered in trying to increase the prevalence of continuing contraceptive use. Studies of the service delivery system have shown that, where field workers actually do work as they are supposed to, marked increases in family planning acceptance have occurred.*

* See, for example, A.B.G. Quddus, Performance of Family Welfare Assistants (University of Chittagong, 1979) and A. Sattar, Evaluating Family Planning Programme Effectiveness and Efficiency--A Case Study of Operations Research Projects (Rajshahi University, 1979).

4. EFFECTIVENESS OF AID SUPPORT

It is the conclusion of this evaluation that AID support to the Bangladesh population and family planning program has been effective, even while the program itself has not been highly effective to date in raising contraceptive prevalence and even though AID's project goals have not been fully achieved. To assess the effectiveness of U.S. support to family planning activities in Bangladesh, it is important to look at the timing, nature, and magnitude of this support against the backdrop of what the prevailing situation in Bangladesh was at the time, of what the BDG program was doing itself, and of when other donors entered the picture and in what way they did so. U.S. support channeled through AID is summarized in the chronological outline below.

Chronology of AID Support to Bangladesh Family Planning

- 1960s --PL-480 funds are used to support activities of the Pakistan Family Planning Association.
- 1972 --A permanent AID mission, USAID/Dacca, is established in newly-independent Bangladesh with Mr. Anthony G. Schwarzwald as first mission director.
- USAID/New Delhi population officer (Mr. Michael Jordan) visits USAID/Dacca to lay out plans for channeling Relief and Rehabilitation funds into health and family planning projects; writes project paper for bilateral population project, chief purpose of which is to establish and maintain an in-country stock of contraceptive supplies.
- Relief and Rehabilitation grant funds are allocated for the initial orientation and training of 12,000 health and family planning multipurpose fieldworkers (FWWs), and for reconstruction of health infrastructure and procurement of equipment.
- 1973 --USAID/New Delhi population officer becomes USAID/Dacca's first population officer--the very first representative of any donor agency to have an officer whose full-time responsibility is Bangladesh family planning. Against AID/Washington opinion, mission director establishes him as chief of a one-person Division of Health and Population.
- Bilateral project 388-11-580-0001 is approved for \$1,524,000 grant funds for FY 1973-75.
- Pathfinder and the Association for Voluntary Sterilization (AID centrally-funded) establish Bangladesh's first high-quality, full-service clinics to meet the facilities for training doctors in clinical contraceptive techniques as well as to augment service delivery capacity.

- A second U.S. direct-hire population position is approved and filled (by Mr. Dallas Voran); subsequently a position for a Bangladeshi professional is also approved and filled.
- 1974
- Mr. Joseph Toner becomes USAID/Dacca's second mission director.
 - Health and Population Division begins lengthy negotiations with AID/Washington to develop project for commercial sale of contraceptives in Bangladesh.
 - AID centrally-funded field research begins on the acceptability and effectiveness under Bangladeshi conditions of a variety of contraceptives (project with Johns Hopkins University).
- 1975
- American professional (Ms. Sallie Craig Huber), resident in Dacca, is recruited to the Division on a personal services contract to develop population research and women's activities supportive of family planning goals.
 - Family Planning Social Marketing Project begins highly-subsidized nationwide commercial sale of oral pills and condoms (AID centrally-funded project with Population Services International).
 - Experimental intensive rural community-based contraceptive distribution project is begun at Matlab by the Cholera Research Laboratory (through AID central-funding).
- 1976
- Bilateral project "Bangladesh, Population/Family Planning" (No. 388-0001) is approved for FY 76-78 for \$15,283,000 grant funds.
- 1977
- A third U.S. direct hire population position is established and filled (by Mr. John Dumm) bringing division staffing for population to five persons (four U.S., one FSN).
 - USAID/Dacca responds to Bangladesh government requests for surgical materials to support a nine-week sterilization campaign at 150 facilities (THCs and other public buildings throughout the country) and subsequently funds an evaluation in which 90 percent of female clients and 50 percent of male clients express positive views of the procedures.

- Division chief Jordan completes four-year tour of duty and is replaced as chief (by Mr. Charles Gurney).
- 1978
 - IDI (Ms. Vivikka Mollrem) joins Division; fills position vacated by Mr. Dumm but later transfers to program office.
 - Mr. Voran leaves USAID/Dacca after completing five-year tour of duty; Mr. Dumm moves into his position as senior officer with full population responsibility.
 - PHAW begins refresher training services in clinical family planning for FWV field trainers through Downstate Medical Center of New York (centrally-funded by AID, 2/78-8/79).
- 1979
 - Division of Health and Population is renamed Office of Population, Health, and Women (PHAW).
 - PHAW negotiates a grant with The Asia Foundation, through the PVO Co-Financing Project, to provide FP/MCH add-on services to five ongoing indigenous PVO projects.
 - Bilateral project 388-0001 is amended to continue for two additional years, FY 79-80, bringing the life of project total to \$39,376,000.
 - PHAW initiates program of participant training for Bangladeshi population staff in Indonesia.
 - PHAW supports the writing, publishing, and distribution of a birth control pill manual for all health workers in order to promote a uniform approach to information about oral contraceptives.
 - Ms. Huber returns to United States.
 - Mr. Frank Kimball becomes USAID/Dacca's third mission director.
 - Mr. Anwar Hussein, mission logistics specialist for population, is recruited away by higher-paying Middle East firm.
- 1980
 - U.S. direct hire population professional (Dr. Carol Carpenter-Yaman) and Bangladesh population professional (Mr. Sheik Ali Noor) are recruited to PHAW; IDI (Ms. Joan LaRosa) also joins PHAW, with responsibility for women's projects. The mission's Logistics Office and Food and Nutrition Office are deleted; the FSN

population logistics position (now occupied by Mr. Harun Al-Rashid) is transferred into PHAW; an FSN from Food and Nutrition (Ms. Louisa Gomez) also transfers into PHAW, following through on ongoing nutrition activities. PHAW staff now total seven professional of whom four (two U.S. and two Bangladeshi) work full time on population.

--PHAW initiates a request which results in a CDC epidemiologic evaluation of sterilization deaths which occurred in 1979-80, as well as an expanded study on female sterilization deaths related to an anesthesia.*

--Mr. Abul Hashem, Bangladeshi population specialist, is recruited away from PHAW by higher-paying organization, an AID population intermediary (FPIA).

--A "104d" position is established to help the USAID/Dacca implement its "beyond family planning" goal (recruitment subsequently obstructed by U.S. government freeze on personnel hiring following presidential election).

--PHAW begins bilateral funding of the Social Marketing Project.

--Project paper for bilateral project "Bangladesh, Family Planning Services" (No. 388-0050) is prepared for FY 81-83 grant funding for \$65 million.**

*See David A. Grimes and Herbert B. Peterson, "Investigation of Sterilization-Related Deaths: Bangladesh, June 11-July 4, 1980" (Atlanta, Center for Disease Control, 1980).

**Remainder of section not completed due to time constraints referenced in Appendix C (pp. C-3 and C-4).

5. AID-FUNDED INTERMEDIARY AND PRIVATE ORGANIZATIONS

Achievements in the private sector by U.S. intermediary and private organizations funded by AID/Washington and USAID/Dacca have been impressive and of a scale probably unmatched in any other AID-assisted country. Seven leading AID-supported population intermediary organizations--The Pathfinder Fund, International Fertility Research Program, Population Services International, Family Planning International Assistance, the Bangladesh Family Planning Association, International Program of the Association for Voluntary Sterilization, and Care/Medico--have all succeeded in establishing an institutional presence in Bangladesh, many with networks of local chapters and service sites and numerous subgrantees conducting their own projects.

In total, there are now over 100 private and voluntary organizations conducting family planning activities in Bangladesh, many of them subgrantees of the seven organizations listed above. In general, the presence and roles of the intermediaries are well-accepted by the government and the people they work with and serve. Their enhancement of community participation is exemplary; their service, standard-setting, training, and ability to undertake innovative activities constitute an essential mix of actions highly complementary to government programs.

The government of Bangladesh is to be commended for encouraging private organizations to play this vital role in achieving national objectives. Likewise, both USAID/Dacca and AID/Washington's Office of Population deserve high marks for their skillful and facilitative management of this important cluster of resources. Illustrative activities of several leading and private intermediary organizations supported by AID are presented below.

Bangladesh Association for Voluntary Sterilization (BAVS)

Supported by the International Project of the Association for Voluntary Sterilization (IPAVS), the Bangladesh Association currently has 22 BAVS clinics in Bangladesh. To date, they have accomplished a cumulative 100,000 sterilizations clearly demonstrating the acceptability of this method of contraception and providing a quality clinical service that has set a standard for expanded government voluntary sterilization services throughout the country.

The Bangladesh government depends heavily on BAVS for the training of government physicians in sterilization and for standard setting in areas of patient screening, evaluation of pre-operative sedative regimens, and post-operative care. By providing an alternate service facility to government clinics, both private and government services can compare each other's work and acquire insights on how to improve both quality and volume.

Although the Bangladesh government has suggested that BAVS further expand its facilities to 100 units, the Association has decided for the time being to add only two more for a total of 24. A

major conference on sterilization has been planned for February, 1981 with approximately 300 attendees and an agenda focusing on evaluation of pre-operative sedation, enhanced local anesthetic technique, clinical reporting, and examination of mortality with comments by visiting technical consultants.

Family Planning Social Marketing Project

The Family Planning Social Marketing Project, supported by Population Services International, was begun under an agreement with the government of Bangladesh in December, 1975 with the goal of promoting the awareness, availability, and purchase of "Raja" condoms and "Maya" birth control pills through thousands of existing retail outlets throughout the country. From a 1976 sales level of approximately 9.7 million Raja condoms and 480,000 cycles of Maya pills, annual sales had increased to the most recent (November, 1979 - October, 1980) total of more than 35 million Raja condoms, 585,000 cycles of Maya pills, 4 million "Joy" foam tablets, and 43,000 cycles of Ovacon low dose pill. All are highly subsidized and thus available at very affordable prices. (Joy was introduced in 1979 and the Ovacon low dose pill was introduced in June 1980). As of October, 1980, the project provided 146,000 couple-months of protection--a growth of 314 percent.*

*Based on the norm that eight condoms, eight foam tablets, or 1.08 cycles of pills provide one month's contraceptive protection to a couple.

Approximately _____ percent of Bangladeshis using modern contraceptive methods purchase their contraceptives through the project outlets.

The project's national system of distribution is through 26 wholesalers, from which project sales representatives have now reached over 60,000 retail outlets in Bangladesh where these products are now available. Since shops and other retail outlets exist to supply the daily necessities of the people in every community throughout the country, this system of distribution conveniently increases the availability of non-clinical contraceptives by placing them within easy reach of all segments of consumers. This method is complementary to the government system of distribution.

Recently, the project has begun "detailing" all types of medical practitioners--including traditional health practitioners--at the thana level, on birth control methods in order to establish additional referral points for consumers. In the future, the project hopes to introduce a small number of health products also, such as oral rehydration salts for intervention in diarrhea and dehydration which are major contributors to infant mortality in Bangladesh.

One especially impressive feature of the Social Marketing Project is the high quality staff that has been recruited, the obviously progressive, energetic, and participatory management style that prevails, and the staff commitment to playing a major role in meeting Bangladesh's population problem.

Issues with which project staff are now grappling include the need to move toward greater financial independence, which would be advanced by the addition of a "luxury" condom and possibly another brand of oral contraceptive. Related to this are problems regarding the use of income and possible source waivers from AID for additional products. Although warehousing is done with good control and management, there is a shortage of warehousing capacity and further efforts need to be devoted to guaranteeing a regular supply of condoms, which occasionally has been a constraint on sales. Finally, the project spends substantial sums to repackage the Maya and Ovacon pills by stamping an overlay label on pills received from the U.S. This issue should be examined again with AID's Office of Population in Washington to determine whether such labeling could be done at less cost in the U.S. at the time of manufacture.

Family Planning International Assistance (FPIA)

FPIA was established in Bangladesh in 1976 as a regional office with much of its workload, however, devoted to supporting activities in Bangladesh itself. FPIA has been a major funder of family planning activities in Dacca for the past five years and will continue this next year because of the recent unavailability of previously anticipated UNFPA funding for Concerned Women for Family Planning (see below), a "star" subgrantee of FPIA.

Under one of FPIA's main projects, four model clinics at medical colleges are funded at \$200,000 for one year each. These are staffed by government employees whose salary is paid by FPIA. At this time, however, they succeed in spending only about 30 percent of their budget and have not succeeded in achieving their acceptor goals. Thus far, the number of patients has been too few to provide adequate training for additional staff.

An example of FPIA project innovation was its National Doctor Project undertaken to teach 5,000 "national doctors" (primary health care workers trained some years ago in India) to do vasectomies. In terms of qualifications, "national doctors" are a step below physicians who have MBBS degrees but they typically work at the union level and have busy private practices, thus being in a good position to promote and provide contraceptive services.* However, because of motivational problems, inadequate

*The MBBS degree is the lowest degree of specialization awarded in the British (and British-based) medical system permitting an individual to practice as a physician.

instruction, and too few cases for adequate practical training, a total of only 380 such doctors were trained. Of these, ultimately 140 were qualified after thorough clinical evaluation and testing. This program has been considered successful even though a smaller percentage became fully qualified than was the original goal.

After several years of rapid project expansion, FPIA is in a consolidation phase and plans no new projects for funding in the immediate future.

Concerned Women for Family Planning

Concerned Women for Family Planning (CWFP) is a voluntary organization which was started by a small group of women in Dacca who, through their experience with smallpox and cholera campaigns as well as a child feeding program, found women eager to practice family planning and obtain voluntary sterilization. CWFP was founded to advise these women about available clinic facilities, assist them to get to the clinic, and to provide oral contraceptives at the neighborhood level on a one-to-one basis. The original neighborhood model for contraceptive distribution was developed around the Concerned Women's own homes. AS the program expanded, volunteer residents in new neighborhoods were enlisted as family planning agents and "depot holders" for contraceptive supplies. The philosophy of CWFP is to encourage all women interested in family planning to start a distribution program around their homes and to become actively involved in working in family planning centers and in the discussion of family planning in a frank and open way.

The Pathfinder Fund*

Pathfinder's work in Bangladesh is effective largely because the country director, a senior Bangladeshi, knows the country well and has close associations with the principal officials in population and family planning.

With non-AID funds, Pathfinder also supports nine menstrual regulation (MR) service and training activities, all carried out with the tacit approval and knowledge of the Bangladesh government. Pathfinder "Model MR Clinics" refer clients desiring sterilization to medical college out-patient clinics where sterilization can be done by the same physicians (often women) who have performed

* Pathfinder project activities in Bangladesh and elsewhere were the subject of a separate evaluation. See "A Comprehensive Evaluation of the Regional Programs of the Pathfinder Fund" by Sallie Craig Huber et al. (American Public Health Association, Washington, D.C.; November, 1980), pp. 185-200.

MRs. This has proven to be more acceptable than referral to the Model Sterilization Clinic but there remains an internal Pathfinder problem to obtain added funding for this additional service. All Pathfinder projects observed by the evaluation team scrupulously adhere to the AID prohibition on the use of AID-funds for abortion and menstrual regulation and it is evident that special care is used to maintain separate accounts and to segregate family planning from MR and related activities.

6. USAID-PROPOSED PROJECT FOR FY 81-83

The USAID-proposed project for fiscal years 1981-1983 is distinctive for its intent to channel a relatively large proportion of funds into family planning activities in the private sector and to invest a significant portion of funds going to the government program into its sterilization component. Given the present status and performance to date of the government program on the one hand and of private sector activities on the other, this appears a highly sensible approach. Also, given the present contraceptive "method mix" picture, the decision to channel resources to sterilization also appears highly sensible. In general, the proposed strategy is well-designed given existing circumstances and many factors bode well for the success of this strategy.

Sterilization and an Expanded Concept of Relative Risk

The concept of "relative risk" is one of the technical and operational underpinnings of public health work. It refers to the ratio of benefits derived in terms of reduced death or morbidity as a result of an intervention versus the incidence of death or morbidity that would prevail without such an intervention.

For example, it is possible to save more lives with a vaccination program than without one, even though it is known in advance that some deaths will occur due to its implementation. Such deaths in mass inoculation programs typically can be traced to hepatitis from dirty needles, a breakdown in refrigeration or the "cold chain" for vaccines or the inability of a few patients or recipients to tolerate the vaccine itself. Before launching such a public health campaign, hypotheses on relative risk are formulated on the basis of predecessor programs and then perfected as experience is accumulated. The point is that even if a certain morbidity or mortality is predictable, a conscious decision is made to proceed on the basis that benefits will significantly outweigh risks.

In large-scale family planning programs, the concept of relative risk has been operationalized for years--for more than a decade--stemming largely from the recognition of the basic, incontrovertible fact that far more women die from unwanted pregnancy than from the side effects of contraception. This is true whether we are talking about deaths from increased thromboembolic disease associated with the use of oral contraceptives or deaths associated with the performance of sterilization operations that will occur because of infection, an overdose of anesthesia or a breakdown in technique.

In evaluating alternative family planning interventions and particularly sterilization in Bangladesh, the following Bangladesh mortality data are relevant:

Mortality Rate per 10,000 Cases (Approximate)

Childbirth	70
Abortion	250
Sterilization (female)	2
Sterilization (male)	3

Childbirth, in other words, is at least 35 times more hazardous to Bangladeshi women than tubal ligation. And when one considers that the average women accepting voluntary sterilization would have two or three more children if she remained unprotected, the relative risk in favor of sterilization increases dramatically.

It is important that both the government of Bangladesh and foreign donors supporting Bangladesh's family planning program acknowledge that some deaths will occur (as they have already). The real issue, however, is not total avoidance of these deaths, but how to minimize them by: (a) better training of service providers, (b) careful screening of clients and refusal to operate on those who are too anemic or have other contraindications (it appears that 10-15 percent of potential acceptors are now being rejected for these reasons, primarily anemia), and; (c) designating supervisory technical responsibility for maintenance of sterile technique and operating room and recovery standards. It is in these areas where special attention is needed and where outcomes can be improved.

Given the likelihood, indeed the predictability, of some incidence of death associated with the provision of voluntary sterilization services, what should be the position of USAID/Dacca and AID/Washington? Should we support a program operating in a difficult environment with certain known but correctable deficiencies or should we adopt the "posture of purists" and not provide support until all things are set right?

It is in answering these questions that the concept of relative risk must be understood and used as the basis for decision.

The decision by AID to support the voluntary sterilization efforts of the government of Bangladesh was a sound one arrived at judiciously. Looking to the future, it should be borne in mind that the safety and quality of the voluntary sterilization program will be enhanced more with our participation than without it. As pointed out elsewhere and given the evolutionary nature of the sterilization effort in this country, it is entirely reasonable to attempt a limited number of key interventions that will serve to increase the safety of the procedure and minimize any morbidity or mortality associated with it.

The decision to continue this support is further reinforced by an "expanded concept of relative risk." This derives from the conclusion that unless fertility is rapidly brought under control, mortality among the more vulnerable groups in society--especially children 0 to 5 years of age and reproductive women--is certain to dramatically increase in the medium or long term as a result of severe malnutrition if not actual starvation.

On a more macro basis, it can also be argued that unless fertility declines rapidly, the tenuous viability of the entire national economy faces not only damaging disruption but possible disinte-

gration and eventual collapse. The magnitude of increased mortality associated with that scenario is a fundamental perspective which the Bangladesh government and donors alike must keep in the forefront as decisions are made now about different kinds of fertility control interventions.

Coupled together, the conventional concept of relative risk and its expanded formulation as they are applicable to the Bangladesh environment provide a sound rationale for continuing and, in fact, expanding AID support to the voluntary sterilization component of the Bangladesh fertility control effort.*

Training in Indonesia for Thana Family Planning Officers

This innovative training scheme, launched under the present project, is a highly promising component of the new project. Through it AID will have concrete means to encourage the government to take more effective steps to decentralize selected responsibilities to appropriate field levels. USAID's proposed new project would facilitate this by adopting the government of Indonesia and USAID/Jakarta scheme of swiftly making small grants available to district- or thana-level administrators with bright promising ideas. Such decentralization would have the double benefit of more effectively tailoring the family planning program to local conditions and, more importantly, of easing the management burden of operating such a large national program. Eventually, and as experience is acquired, decisions about matters such as goal setting, delivery strategy, targets, method mix, evaluation, and IEC should be made at the sub-national and especially thana level. Certain aspects of the Indonesian training provided by the present project have been criticized both in Indonesia and in Bangladesh but USAID/Dacca is undertaking an evaluation which should be instrumental in working the kinks out of this new, ambitious, and rather unprecedented effort.

Expanded Operations Research Recommended

USAID/Dacca has funded operational research in the biomedical area on only a very limited basis. There is, however, a Bangladeshi community of scholars with local knowledge and insight who could be called upon to present projects of mutual interest for funding. Social, medical, and programmatic variables can be tested which would have direct application to USAID's contribution to BDG family planning goals. Furthermore, the value of such research would go significantly beyond the data collected and interpretations made in that it would stimulate more objective talk about family planning, and more interest in the family planning clients, real and potential.

*See also Anthony Measham et al., "The Demographic Impact of Tubectomy in Bangladesh" (forthcoming in Dacca University Journal of Social Studies).

It is suggested that USAID/Dacca should direct and, in fact, expand its operations research program to encourage investigation of such applied medical, motivational, and procedural problems as the following.

Possible Topics for Locally-Funded Biomedical and Related Operations Research

1. Evaluation of tubectomy sedative regimens.
2. The utilization of pre-sterilized disposable drapes, gloves, and gauze and their effect on tubectomy morbidity.
3. The side-effects of low-dose (less than 50 microgram estrogen) combination birth control pills in Bangladeshi women.
4. The comparative effects of intramuscular penicillin (single, preoperative injection), oral tetracycline (1 hour preoperative and 4 days postoperative), and no antibiotic therapy on tubectomy morbidity.
5. The comparative effects of multi-vitamin therapy and frequent FWA visits on Copper-T continuation rates.
6. An analysis of women rejected from tubectomy program: reasons for rejection, post-rejection family planning acceptance, and later sterilization.
7. The effects of borderline hemoglobin levels on tubectomy morbidity: immediate surveillance and evaluation of deaths and severe morbidities in sterilization clients.
8. The time-effectiveness and utility of uterine evaluation in tubectomy procedures.
9. The extended use of local anesthesia with 0.5 percent solutions and "layer" blocking.
10. Incidence of sterilization failures and its programmatic implications.
11. The effect of sterilization on the social status of women.
12. Sterilization in Bangladeshi women: its effect on menstrual bleeding.
13. Sterilization in Bangladeshi women: its effect on their marital relations.
14. Increased prevalence of sterilization: its effect on the acceptance of other family planning methods.
15. Logistics and planning for "camp"-type sterilization procedures.

16. Aseptic technique: how, where, to whom, and by whom it can be taught.
17. The use of the Copper-T by women with two or less children (sex of children to be an independent variable).
18. The effect of oral pills and Copper-Ts on birth interval in Bangladeshi women aged 20 to 29 in urban and rural centers.
19. The pregnancy spacing concept: how to present it to Bengali women.
20. Family planning training aids for illiterate people.
21. The incidence of hypertension and diabetes in Bangladeshi women 20 to 29.
22. The three major causes of death and disability in Bangladeshi women 20 to 29 and 30 to 39.
23. Maternal mortality: the causes which can be influenced by simple intervention.

7. POPULATION GROWTH AND FERTILITY REDUCTION GOALS

The government's goals, as stated in Second Five-Year Plan, 1980-1985, prepared by the Planning Commission are to:

- a. Achieve a Net Reproduction Rate of 1 (replacement fertility) by 1990,
- b. Reduce the total fertility rate from 5.85 in 1980 to 4.1 by 1985,
- c. Reduce the birth rate from 43.3 per thousand in 1979-80 to 31.5 per thousand in 1985,
- d. Increase the percentage of eligible couples using contraception from 14 percent in 1979-80 to 38 percent in 1984-85, and
- e. Limit the increase in population size from 90 million in 1979-80 to 100.7 million in 1984-85.

These ambitious goals, desirable as they may be, are almost certain to be unachievable. And because they are perceived to be unrealistic, service delivery staff will tend to ignore them as, indeed, they have ignored similar goals and targets in the past. To the extent that actual economic planning and investment decisions are based on these unrealistic assumptions and projections of population change, serious misallocations of resources will result and the entire development planning mechanism will be distorted, proven faulty and, over time, lose credibility.

There are a number of risks and disadvantages associated with the projection of unrealistic growth rates, population size, and program performance targets. These appear to be inadequately understood within the Planning Commission, the Ministry of Health and Population Control, and other parts of the government.* The risks include:

- a. Determining future resource allocations on the wrong assumption that overly ambitious population objectives will be achieved. For example, basing food production requirements and the many investments needed for increasing food production and projecting school enrollment and labor force sizes on erroneous assumptions about rapidly declining fertility will only create havoc in a planned resource allocation and investment scheme.

*See also the detailed analysis of the BDG demographic goals presented by USAID/Dacca in its Multi-Year Population Strategy Paper, USAID/Dacca, December 1977, pp. 40-54.

- b. Creating a false sense of security within the bureaucracy and throughout the society that rapid population growth can be quickly and rather painlessly brought under control in accordance with some "scientific" formula emanating from the technocracy.
- c. Imposing top-down performance targets upon health and family planning workers that are not achievable, are recognized as such and, consequently, tend to be ignored by these "rice-roots," front-line workers.
- d. Introducing unnecessary confusion and dissonance in the dialogue between donors and the government about what are reasonable program objectives and the mutual determination of inputs needed to achieve them.
- e. Courting a loss of credibility when impossible goals are not achieved which will invite attacks upon the government for failure to fulfill its promises in this vital area affecting the people's welfare.

USAID, in consort with other principal donors (especially the World Bank, the United Nations Fund for Population Activities, and the Asian Development Bank) should engage in a dialogue with the Bangladesh government at appropriate senior levels of the Planning Commission, the Ministry of Health and Population Control, and the Office of the President to urge an overhaul and revision of growth rate goals, targets for program achievement, and future population size projections. In addition, USAID and other donors should seek to have this issue aired at the next Consultative Group meeting of major donors convened by the Bank in March, 1981. In the meantime, a preliminary dialogue should be launched with the Bangladesh government without delay.*

*It should be noted here that USAID population staff disagree with this recommendation on the grounds that what is described above is "the Bangladesh way." It is also said that the government uses such ambitious goals and exhortation as a means of activating the populace and program personnel alike even while not fully believing the goals to be achievable.

8. TARGET-SETTING AND PROGRAM PERFORMANCE MANAGEMENT

To a considerable extent, demographic targets are translated and program performance is measured according to the concept of prevalence of contraceptive use among married women of reproductive age (MWRA). At the same time, much confusion exists at the implementation level among program managers and field workers about how to distinguish between "cumulative new acceptors" and "current users" (or prevalence). As a result, inadequate attention is given to increasing the numbers of contraceptive users and, too often, the recruitment of new acceptors assumes nearly exclusive priority while followup actions are neglected.

Related to this is the almost universal and serious underestimation at district, thana, and union levels of current population size and the present number of eligible couples. Typically, program managers are relying on 1974 census figures for both, which now are more than six years out-of-date and understate both population size and the number of eligible couples by approximately 21 per cent.*

The recommendations stated in Section II. 8. above are repeated here:

1. National goals for reduced growth rates should be translated into goals for increasing the prevalence of contraceptive use. This should be done for all organizational levels.
2. Management and field staff at all levels should be trained to use prevalence as a measure of program performance. (The UNFPA Western Consortium group concerned with field worker training could be a primary technical assistance and field training resource for this action.)
3. Estimates of population size and eligible couples must be revised from 1974 census figures through 1982 so that all levels of the service delivery system will be equipped with target numbers.** Similarly, eligible couple registers should be updated in tandem with this exercise, but only after field staff have been given new eligible couple estimates and trained in the use of the "prevalence programming" tool (see Appendix F).

*Assumes a 2.8 percent per year growth rate, 1974 to 1981.

**The suggestion that this revision be delayed until the 1981 census results are available should be rejected because these results will not be in hand until 1982 by which time, the data will be eight years out-of-date.

The preparation of new estimates of population size and estimates of eligible couples could be quickly accomplished with electronic hand or desk calculators at the central level and distributed to the field. It is neither necessary or desirable to use sophisticated electronic computers for this task.

When considering these recommendations, it is useful to recognize that the concept of quantifying demographic goals in terms of growth rates, future population size and service delivery targets is well established in key government ministries and generally understood by lower echelon staff. Furthermore, the family planning services delivery program is now in that state of evolution and early maturation which makes possible a further refinement toward implementation of "prevalence programming."

Field visits by the evaluation team revealed that prevalence concepts are moderately well understood, in some instances used in measuring program performance and, almost always, quickly grasped by supervisors when it was explained to them. The receptivity by technical people in Dacca was likewise highly positive.

In the absence of a vital registration system, prevalence measurement provides a totally adequate (although not perfect) surrogate for measuring and tracking changes in the crude birth rate and growth rate. When supplemented by annual or periodic prevalence surveys such as those now planned to begin in 1981, it can adequately substitute for a more elegant service statistics reporting system.

Chart No. 3 below shows the correlation between the crude birth rate and population growth rate with the prevalence of contraceptive use. This single and relatively simple concept is applicable to all levels of analysis and target setting--national, subdivision, district, thana, union, ward, and block. It can be applied to any political subdivision or coverage area and will serve as a powerful tool for program management permitting easy comparison of program performance among geographic areas and field workers while also displaying the status of current use and future goals.

The above can be illustrated in practical terms by recapping details from the visit to one of several thanas selected at random by the evaluation team. This was Laksham Thana, the largest thana of Comilla District. Table No. 6 below shows that the thana family planning officer and her staff were using a reasonably good estimate of both population size and eligible couples. However, they had obviously added in all cumulative new acceptors of both pills and condoms. This led them to claim a total of 52,176 users and 51 percent prevalence.

When the monthly resupply of pill cycles and pieces of condoms was examined, it was possible to estimate users of each of these methods based on supply off-take. If records for only two or

Chart 3

PREVALENCE PROGRAMMING CHART

Prevalence of Contraceptive Use Worksheet

1. Present population size = _____
2. Present number eligible couples:
(= population ÷ 5) = _____
3. Average number pills distributed
per month = _____
4. Average number pieces condoms
distributed per month ÷ 10 = _____
5. Cumulative vasectomies = _____
6. Cumulative ligations = _____
7. Number IUDs and Copper-Ts in use
(from table, Appendix F) = _____
8. Cumulative number injections
past 3 months = _____
9. Estimated number of foam or Neo-
Sampoon users previous month = _____
10. Total number contraceptive users
(add no. 3 through no. 9) = _____
11. Prevalence = $\frac{\text{Number users}}{\text{Eligibles}}$ = _____ %

Correlation Between Prevalence of
Contraceptive Use and Population
Growth Rates, Crude Death Rates,
and Crude Birth Rates

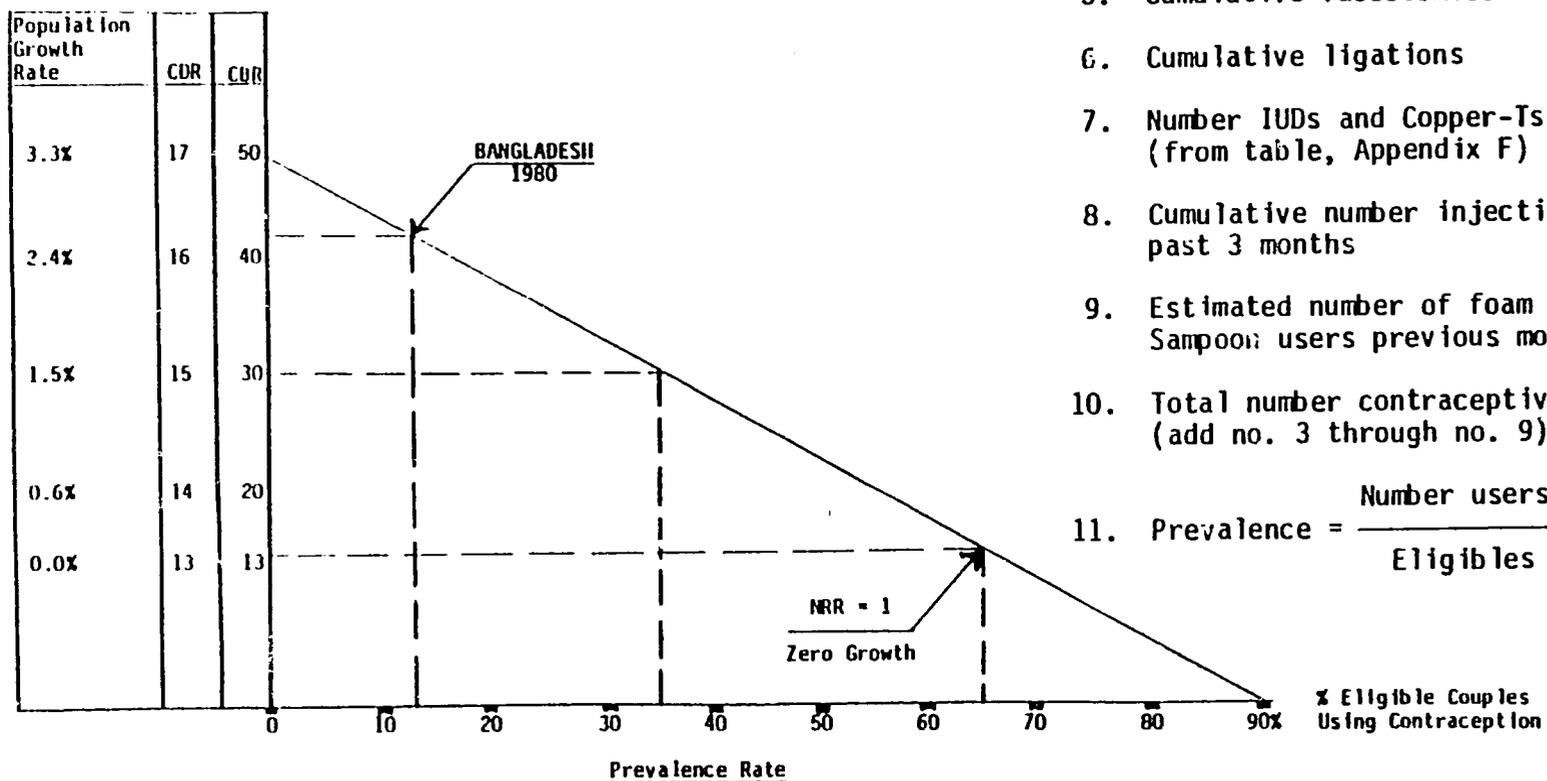


Table 6

Miscalculation of Contraceptive Prevalence
(Laksham Thana, Comilla District)

Reported by Thana Family Planning Officer

A. Population

1. 1974 Population size: 448,078
2. 1980 Estimated Population: 500,000
3. 1980 Estimated eligible couples
(=20 percent x population size) = 100,000

B. Prevalence Estimate (Current Users of Contraception)

	<u>Number Users</u>	<u>Percent Eligibles</u>
1. Oral pills	25,792	25%
2. Condom	22,387	22%
3. Foam	833	1%
4. Vasectomy	1,029	1%
5. Tubal ligation	<u>2,135</u>	<u>2%</u>
Total:	52,176	51%

Estimated No. Current Users 52,175

Estimated prevalence 51%

Revised (Accurate) Calculation

A. Population

1. 448,078
2. 528,825 (@2.8 percent/year since 1974)
3. 105,765 (@20 percent x population size)

B. Prevalence Estimate

	<u>Number Users</u>
1. Oral pills, monthly resupply	4,000
2. $\frac{\text{Pieces distributed/month}}{8 \text{ pieces per month}} = \frac{3600}{8} =$	450
3. Foam distributed per month	25
4. Vasectomies (cumulative since 1976)	1,029
5. Tubal ligations (cumulative since 1976:)	<u>2,135</u>
Total Estimate	7,639
Estimated number current Users	7,639
<u>Estimated prevalence</u>	<u>7.22%</u>
$(\frac{7,639 \text{ users}}{105,765 \text{ eligibles}} = 7.22\%)$	

three months are checked, a good estimate of current use can easily be derived. To this, it merely is necessary to add cumulative vasectomies and tubal ligations to arrive at an estimate of current users. Recalculated, Laksham figures showed a total of only 7,639 current users, or 7.2 percent. Laksham was only one of several thanas (some preselected for the evaluation team and others randomly selected by the team) in which this same situation existed.

The conclusion that the service program is "ripe" to shift to prevalence programming is reinforced by the ready availability of user and supply off-take data. The quality of these data is clearly good enough to make this change now and the calculations necessary to accomplish this at a district, thana, or union level seldom requires more than an hour or two, even when allowing for a cup of tea.

9. LOGISTICS: COMMODITY MANAGEMENT AND CONTROL

Contraceptive commodity supply is vital to any family planning program. Interruptions in that supply at the user level are to be avoided at all cost. In a maturing program as in Bangladesh, such interruptions should be regarded by management as inexcusable and intolerable.

The provision of oral contraceptives, condoms, IUDs, foam tablets, and IUD and sterilization kits has been a major part of USAID assistance since 1973. Commodities imported to date include:

<u>Commodity</u>	<u>Quantity</u>	<u>Cost</u>
Oral contraceptives (monthly cycles)	60 million	Cost \$10.1 million
Condoms (million pieces)	455 million	Cost \$16.2 million
IUDs (pieces)	200,000	Cost \$ 77,000
Emko foam	324,000	Cost \$ 409,000
Medical kits	13,326	Cost \$ 1,001,000
Other medical supplies	--	Cost \$ 305,000
	TOTAL:	\$28,092,000

The supply system seems to be adequately designed. What remains lacking, however, is energetic supervision and implementation. Problems begin at the central PCFP Division level where the key post of Deputy Director for procurement has remained vacant for over one year and where the response time for straight-forward follow-up action seems unnecessarily prolonged.

The warehouse situation in Chittagong, (one of Bangladesh's three major warehouses) is extremely troublesome. On November 3, 1980, it had 40,632,000 condoms, 5,501,000 monthly cycles of pills, and only 26 boxes of Emko foam. (In addition, the warehouse receives and stores commodities provided by UNICEF, UNFPA, the Federal Republic of Germany, and Japan which account for approximately 10 to 15 percent of warehouse space.) The condoms and pills are stacked, without pallets, 20 feet high from floor to ceiling totally covering 90 percent of floor space. Because of the failure of districts to maintain a full three-month's supply, this warehouse is now so full that it is impossible to remove the oldest stock first.

This is a correctable situation, but it will only be improved if it receives senior-level attention. Fortunately, the supply officer in charge is competent and knows what needs to be done, but he needs authorization to move supplies to the districts which

the regional warehouse services as well as drivers, trucks, and funds for the movement of goods. (The UNFPA has provided the MOH with 15 covered flat-bed trucks, which can easily handle this task. The last 10 of these trucks were delivered in October, 1980.)

In addition to moving one-third or so of the stock to district warehouses, staffing at the warehouse should be brought up to authorized levels. The one upper division clerk has been "temporarily" assigned to Dacca for the past two years and the one assistant storekeeper has been working at the port clearance office since December, 1979. Also needed are pallets to lift stock off the floor and segregate shipments and a forklift truck. The warehouse building, which was constructed before World War II specifically for medical supplies, appears sound in all respects and reportedly is dry year-round.

At this point there is no immediate problem of stock exceeding its generally accepted five-year shelf life. The oldest stock in the warehouse had the following dates of manufacture:

Pills: November, 1977
Condoms: December, 1977 (24 cartons only) balance of condoms were manufactured in 1978 or later.

If "first-in, first-out" procedures are followed, no stock will deteriorate or exceed its shelf-life. To accomplish this, however, at least one-third of the commodities must be moved to district and thana level storerooms and the remaining supplies segregated by date of receipt or preferably, date of manufacture.

The quality of field monitoring of logistics operations by USAID staff is high and it is strongly urged that this continue, preferably with MOH staff participation. Excerpts from two September, 1980 reports by an USAID staff person describe the situation at the thana level which led to the recommendation for emergency resupply action:

--"Thana family planning offices were not maintaining stock as per supply manual."

--"The lack of funds to move commodities from district warehouses to thana stores is disrupting the whole supply system."

--"Low or nil stocks of condoms, oral pills and Emko foam were observed at most thana-level family planning offices in Comilla district."

Illustrative of specific supply situation in Comilla District were the following:

Table 8

Contraceptive Supplies, Comilla District As Illustration

1. Chandina Thana, August 16, 1980

	<u>Condoms</u>	<u>Oral Pills</u>	<u>Emko Foam</u>
In stock	1,600 pcs	None	15 vials
Avg. Monthly Requirement	9,100 pcs	2,760 mc	10 vials

2. Chowdagram Thana, August 19, 1980

	<u>Condoms</u>	<u>Oral Pills</u>	<u>Emko Foam</u>
In stock	7,700 pcs	2,000 mc	Nil
Avg. Monthly Requirement	14,200 pcs	4,260 mc	50 vials

3. Chandpur Thana, August 21, 1980

	<u>Condoms</u>	<u>Oral Pills</u>	<u>Emko Foam</u>
In stock	100 pcs	1,951 mc	2 vials
Avg. Monthly Requirement	10,600 pcs	3,180 mc	50 vials

4. Matlab Thana, August 21, 1980

	<u>Condoms</u>	<u>Oral Pills</u>	<u>Emko Foam</u>
In stock	13,903 pcs	7,742 mc	47 vials
Avg. Monthly Requirement	16,800 pcs	5,040 mc	40 vials

5. Hajigoni Thana, August 21, 1980

	<u>Condoms</u>	<u>Oral Pills</u>	<u>Emko Foam</u>
In stock	8,100 pcs	60 mc	1 vial
Avg. Monthly Requirement	5,600 pcs	2,000 mc	10 vials

6. Debidwar Thana, August 24, 1980

	<u>Condoms</u>	<u>Oral Pills</u>	<u>Emko Foam</u>
In stock	5,356 pcs	2,975 mc	Nil
Avg. Monthly Requirement	14,800 pcs	4,440 mc	50 vials

7. Muradnagar Thana, August 22, 1980

	<u>Condoms</u>	<u>Oral Pills</u>	<u>Emko Foam</u>
In stock	3,600 pcs	1,080 mc	Nil
Avg. Monthly Requirement	16,800 pcs	5,040 mc	50 vials

Summary Supply Status, Comilla District

	<u>Condoms</u>	<u>Oral Pills</u>	<u>Emko Foam</u>
In stock	41,359 pcs	15,808 mc	65 vials
Avg. Monthly Requirement	88,000 pcs	26,720 mc	260 vials
Percent of Avg. Monthly Requirement In Stock	47%	59%	25%

The above data reveal a basic breakdown in contraceptive commodity distribution which AID, as supplier of these commodities, should view as unacceptable. Furthermore, it reflects a lack of senior management attention throughout the delivery system and most seriously jeopardizes the government's ambitious goal of reducing fertility as quickly as possible.

The recommended emergency supply action can put things right on a one-time basis, but even after that happens, constant supervisory vigilance and action will be required to prevent lethargy and management neglect from again taking over.

USAID/Dacca is to be commended for its timely use of centrally-funded contractors, particularly the Center for Disease Control in Atlanta whose staff person, Mr. Jack Graves, has provided high quality assistance in logistics management through five short-

term consultations. It was noted, also, that the UNFPA has recruited a full-time logistics advisor who was expected to join the UNFPA Dacca staff in December, 1980. These inputs have been and promise to be most useful.

Commodity handling could also be improved if AID/Washington directed pill and condom manufacturers to label shipping cartons with the manufacturing date in much larger letters and numerals clearly visible on all four sides of the carton. Further, the use of color coding for different years of manufacture and type of commodity would be similarly helpful.

At the same time, responsibility for managing what basically is a straightforward supply and distribution system must rest with the government, not with the donors of these supplies. It remains essential, therefore, that managers and field workers give this higher priority now, bearing in mind the simple truth that people cannot be expected to contracept without contraceptives.

10. INADEQUACY OF TRAINING AND SUPERVISION

"FWAs," "FPAs," and "FWs": The Grassroots Fieldworkers

The government of Bangladesh recognized in 1976 that to have a successful family planning program a strong corps of indigenous fieldworkers was necessary at the village level. Throughout the country female fieldworkers--called "family welfare assistants" ("FWAs")--and male higher-level fieldworkers--called "family planning assistants" or ("FPAs") were recruited and given basic family planning and contraceptive information. They were generally young, unmarried people who came from the more well-to-do rural families and who had a primary education. The information given them to transmit to their clients was minimal, however, and they tend to be socially distant from their clients. Without extensive motivation from supervisors, most of them subsequently lapsed into mediocre performance at best. In most cases extensive retraining and better-quality supervision is necessary to equip them to more effectively motivate for family planning and especially to know how to deal with the side-effect issue.

"FWVs": Female Paramedics

A newer cadre was subsequently formed by the addition of female paramedics called "family welfare visitors." With an equivalent of tenth-grade education, they were given 18 months of didactic material in basic midwifery, human physiology, and family planning. Facilities for hands-on clinical drills were not available primarily because of lack of coordination with already established health facilities that might have had enough clients for training but that were not interested in taking on another responsibility. FWVs receive their training in one of 11 FWV Training Institutions ("FWVTIs", one more of which is soon to be completed). The FWVTIs have been long on didactic lectures and short on student participation and clinical practice. As is apparently typical of nearly all the family planning training that goes on in Bangladesh (and apparently training in most other sectors as well), students spend most of their time sitting in rows listening to lectures and learning by rote. The government plans to train more of them and CARE-Medico has assigned a physician to work with NIPORT in up-dating and improving the FWVTI curriculum and educational techniques.

Following training the FWVs are assigned to clinics and family planning centers where they are the major clinical support personnel in the sterilization program responsible for important activities such as preoperative sterilization counseling and physical evaluation. They also are responsible for IUD insertion.

FWVs, of whom there are now some 1,500, are a potentially important group of family planning workers. They have considerable factual knowledge but have received so little hands-on clinical experience during their training that many are unable to do the tasks specified in their job descriptions (see sterilization findings in section V.13). The lack of skills was made evident during the visit to a sterilization camp where FWVs were queried about weighing people,

taking blood pressure, and the testing of urine by sugar. Each of the FWVs that was executing the testing could slowly or improperly recite what to do but was obviously unable to finish the job correctly or promptly. Similarly, foreign nurses working for several years in rural clinics express dismay over the many newly-graduated FWVs who are unable, they say, to take a blood pressure, pulse, or even in some cases, a temperature. Potentially this group of educated women are a cadre of workers important socially as role models as well as for the actual work their job-descriptions say they should be able to perform.

The question of advanced FWV training is made especially troublesome by the fact that NIPORT has still not filled 10 of 12 posts for FWV trainers despite authorization more than one year ago to do so (see V.3 above).

General Comment

Each group of workers needs specialized attention for additional and remedial training so that their expertise will match the government's expectation of superior service provided with dedication. USAID/Dacca is proposing, in its new project paper, a grant to CARE for expatriate technical assistance, salaries, and operational support for key faculty, equipment, educational, and training materials. These inputs are extremely important so that the basic MCH/FP infrastructure can fulfill expectations of increased quality and quantity of services.*

*Complete findings and analysis not presented given time constraints referenced in Appendix C (pp. C-3 and C-4).

11. CONTRACEPTIVE METHOD MIX

A broad "cafeteria" consisting of the following modern family planning methods are available in Bangladesh as part of the government's national family planning program and as services offered by private-sector organizations. All but menstrual regulation are supported by AID.

Permanent Methods

Sterilization, particularly of women, is a promising target of opportunity and will represent a significant contribution to family planning in Bangladesh. There will be a continuing need for the services and hopefully the vasectomy portion will increase. Sterilization represents the method of choice of 20 percent of current Bangladeshi contraceptors and will continue at that level as the pool of contraceptors enlarges. (See Table 9.)

One caveat stands out. Sterilization is accepted by birth terminators all of whom have families of significant size (4+ children on the average). It does not address the largest group of women (80 percent of contraceptors) most of whom are in the prime reproductive decade (20 to 29), for whom birth spacing should be the key issue.

Non-Permanent Methods

According to government and PSI figures, the method mix for spacers is as follows: oral pills, 42 percent; condoms, 5 percent; IUDs, 3 percent; vaginal foams and tablets, 3 percent; and injectables (Depo-provera and phase-II Noristerat trials), less than 1 percent.

Oral Pills. This will continue to be the woman's mainstay for child spacing purposes. Among all women who have knowledge of modern contraceptive methods, knowledge of the pill is highest--about 93.5 percent (according to the 1979 AID-supported survey conducted by Westinghouse). Work has now begun in Bangladesh to evaluate low-dose pills. Two studies have been completed by Bangladeshi authors which suggest, but do not statistically verify, fewer side effects with combination pills containing 30-35 micrograms of estrogen. One observation of importance was that better trained, more motivated providers made for more acceptors and a higher continuation rate. Low-dose pills are not a panacea but represent the norm in dosage in most parts of the world--and intuitively one expects fewer generalized side effects in their use with women who weigh 75 ± 5 pounds. There is a large grey zone where real symptoms merge with those perceived. The presentation of an alternative to Norinyl 1/50 will make a significant difference to continuation rates.

Condoms. Condoms have been the only birth control method to have increased significantly in usage in the past three years. Largely

Table 9

Family Planning Service Statistics, 1972-79

	<u>IUD</u>	<u>Vasectomy</u>	<u>Tubectomy</u>	<u>Condom (dozens)</u>	<u>Pill (cycles)</u>	<u>Emko (vials)</u>	<u>Injection</u>	<u>Menstrual Regulation</u>
Jan-June '72	1,595	139	151	295,767	14,510	9,512	--	--
July-Dec '72	6,882	126	66	754,302	53,267	28,636	--	--
Jan-June '73	8,778	114	63	934,505	86,504	44,085	--	--
July-Dec '73	9,788	58	168	493,832	124,502	46,862	--	--
Jan-June '74	17,802	388	847	442,799	316,471	52,842	--	--
July-Dec '74	17,840	3,802	1,718	334,118	441,500	35,625	--	--
Jan-June '75	32,551	10,667	2,989	439,420	816,972	63,466	58	686
July-Dec '75	35,089	18,701	4,836	2,157,279	2,309,622	60,168	175	1,140
Jan-June '76	41,951	19,138	6,240	2,499,766	3,633,433	64,616	1,733	3,139
July-Dec '76	35,960	19,545	9,081	1,664,259	2,276,409	33,560	--	3,269
Jan-June '77	23,461	55,521	32,165	1,273,871	2,362,188	25,919	1,319	3,424
July-Dec '77	21,062	18,293	18,266	2,037,127	3,655,737	18,131	2,209	2,813
Jan-June '78	19,502	14,350	26,456	3,410,072	3,831,571	14,093	2,318	3,322
July-Dec '78	12,996	17,272	44,281	2,331,755	3,899,438	17,552	3,924	2,287
Jan-June '79	9,641	7,411	37,413	2,483,544	3,223,969	21,220	7,104	2,125
July-Dec '79	9,453	17,918	73,049	2,662,325	3,486,715	23,030	9,000	2,356

Source: PCPP Monthly Service Statistics.

because of the success of the social marketing system they are widely available and utilized. This suggests that Bangladeshi men can become reliable family planners. Furthermore it is possible that a carefully made plan of education for sterilization will draw in more men and tend to equalize that aspect of birth prevention.

IUDs. Second-generation IUDs are represented in Bangladesh by the Copper-T. Universally, copper-bearing IUDs have been shown to have lower failure rates, fewer bleeding complications, and better acceptance than inert plastic IUDs. Moreover, IUDs have the lowest incidence of side effects precisely in the group of Bangladeshi women who need them the most: those who have had two or three births. With reeducated and increased numbers of health-family planning fieldworkers, the stage is set for a program to encourage Copper-Ts, especially in rural areas. It is important to recall that the inert plastic IUD (Lippes Loop) has been known in Bangladesh since 1968 but became very unpopular and thus had poor continuation rates after an initial high-pressure Pakistani campaign to make it Pakistan's universally used method. Copper-Ts, called such rather than IUDs, provide another opportunity to use what should be a good method for multiparous spacers, if presented well and if the clients are followed and reassured effectively.

Injectable Progestational Agents. These are being field tested for acceptance by Bangladeshi women. Initial impressions are that they would be quite popular. The concept of a parenteral substance administered in private by another woman, which has few generalized side effects and can be given infrequently (every two to three months), is a set of advantages that cannot be ignored. In areas where Depo-provera has been available and where phase-II trials of Noristerat have been conducted under the auspices of WHO, client response has been good. The Bangladesh government recognizes that injectables would fill a significant niche in their cafeteria of methods. Officials interviewed indicate being encouraged by the use of Depo-provera in Western Europe, New Zealand, and Thailand. Recent U.S. reevaluation of Depo-provera data is encouraging to Bangladesh officials and they plan to expand this part of their program. Despite reservations on the part of a small number of Bangladeshi professionals, it is generally hoped that AID will soon be in a position to give them positive support in this area, by supplies of Depo-provera. In any event, injectable contraceptives can be readily obtained through the UNFPA and IPPF and there is no reason to delay expanding use of this method until the U.S. Food and Drug Administration takes action.

Vaginal Foams and Tablets. It is unlikely that vaginal methods using spermicides will represent more than the scant percentage of current users unless a new local method becomes available which is more practical and more effective.

Menstrual Regulation. Menstrual regulation ("MR") is the vacuum aspiration of the uterus with a small plastic cannula not requiring dilation. It is usually performed within two to three weeks after a missed menstrual period when the procedure is simple, safe, and minimally uncomfortable. It is regularly done without a laboratory pregnancy test when subjectively the woman feels pregnant and objectively there are findings on examination which strongly suggest it (e.g., uterine softening or enlargement). MR is performed on some women who are pregnant and others who turn out not to have been pregnant. Because the procedure is done without definite knowledge of pregnancy it is not construed as a deliberate act of abortion. It is this line of reasoning which rationalizes MR in Bangladesh and other countries where statutes either prohibit abortion or are not explicit about its legality.

MR has been an officially accepted Bangladesh government birth prevention service since 1976, even though a restrictive abortion law set down by the British during the colonial period is still on the books. The law has apparently never been enforced by the Bangladesh government and revision of the law is in the process of evaluation and may be passed by the current session of parliament. At least 16,000 MRs were performed in Bangladesh in 1979. These were done primarily in Pathfinder-funded model clinics which are also teaching clinics for physicians (government and non-government) and family welfare visitors (FWVs). The total demand for termination of unwanted pregnancies in Bangladesh is unknown. The urgent desire of Bangladeshi women for abortion is manifest by the demand for folk (or indigenous) methods of abortion which have been variously estimated at 300,000 to 500,000 cases per year. The estimated mortality of these abortions is 2500 deaths per 100,000 abortions--which attests to the fact that women are willing to put their lives on the line for a need they feel is imperative.

In view of the above, it is not surprising that several Bangladeshi officials raised questions about obstacles presented to date by the U.S. government's ban on the funding of abortion and its possible negative effects on the government's expanded sterilization program. Since passage of the U.S. Helms amendment earlier in the 1970's private-sector clinic operations that receive partial funding from AID/Washington through intermediaries have been prohibited from performing MR procedures on the same premises where U.S.-sponsored contraceptive services are offered even though abortion equipment and compensation for personnel comes from other sources. This "one roof" prohibition has thus already seriously disrupted the provision of sterilization and MR services, both of which are viewed as important by the government of Bangladesh and both of which appear increasingly popular among Bangladeshis.

There is no doubt that an unwanted pregnancy provides a significant spur of incentive to a woman, or a couple, to future contraceptive activity. A 90+ percent acceptance of birth control by MR clients is regularly reported by family planning facilities performing MR. Post-MR clients readily accept Copper-Ts and have also formed

the nucleus of a clinical trial with the Multiform (copper-loaded) IUD. It is a clearly established fact that large numbers of Bangladesh women actively seek sterilization early in an unwanted pregnancy. Currently, however, women seeking sterilization at BAVS and other AID-supported clinics are turned away if pre-operative screening shows them to be pregnant--even though the combination of early abortion and sterilization has been demonstrated worldwide to be safe and effective.

The inconsistency between the intensity of U.S. attention to population problems and the rigidity of the U.S.'s policies about abortion is thus of great concern to Bangladesh government officials. They do not wish to jeopardize the sterilization program for which they need significant help from the U.S. At the same time they are also anxious to meet the significant demand for safe abortion from their own citizens who want to space their children and have a strong desire for post-abortion contraception.

Strategies for Increasing Use of Contraceptives for Birth Spacing

At the present time, 80 percent of married couples of reproductive age are not ready for permanent contraception. They represent the most important and challenging target for family planning. Ultimately their decision will affect population growth in Bangladesh more than any other set of factors in the demographic variables. Many women in this group are pregnant or raising weaning infants. They have justifiable concerns for their health and for the well-being of their children. It is reasonable to expect they would respond positively to a sharing of their concerns. That is why a small number of carefully-selected maternal and child health interventions can have a powerful effect on contraception acceptance and continuation. For example, anemia is a contributing cause to 25 percent of maternal deaths. Thus iron tablets, even intermittently given through pregnancy, will be beneficial. Diarrheal disease is the leading cause of death under one year of age and rehydration information and assistance need reiteration. The family planning message, with a touch of human concern manifest in the above areas, will fall on more open ears.

As is implied by the relatively large number of condom acceptors, even in the cultural milieu of Bangladeshi society, men should not be ignored in family planning motivation activities. Strategies for orientation, education, and motivation of men should have increased attention and represent an ideal area for operations research.

13. STERILIZATION

For the past three years, the BDG has accelerated its sterilization program doing approximately 109,000 in 1978, 136,000 in 1979 and projects 200,000 in 1980. 400,000 cases is the goal set for 1981. Tubectomy on women accounted for 82 percent of the procedures in 1979 and appears culturally acceptable. Sterilization currently is the birth control method of one-third of married couples of reproductive age who are contracepting. Vasectomy is less enthusiastically received by Bangladeshi men for whom any operation on the genital area often implies castration. A 1977 evaluation of vasectomy clients showed that 50 percent were dissatisfied with the procedure when interviewed some time after surgery. In contrast, 95 percent of tubectomized women were satisfied.

By 1977, more physicians had become trained in tubectomy and a rapid increase in operations on women began while at the same time, an abrupt decline of vasectomy occurred.

Year	Vasectomy		Tubectomy		Total Operations
	Numbers	% of Total	Numbers	% of Total	
1977	66,100	54%	56,400	46%	112,500
1978	33,000	31%	76,000	79%	109,000
1979	25,300	18%	120,400	82%	135,700
1980*	8,400	8%	96,100	92%	104,500

*Six-month figures.

There are several advantages of vasectomy: it is a shorter operation, it requires less analgesia, and in every country except Bangladesh at present it has a lower morbidity and mortality. Moreover, it can be done on male partners of women who are rejected for sterilization for medical reasons (10-15 percent of candidates in Bangladesh). Also, an effective modern program should draw its clients equally from men and women. A concentrated educational campaign directed primarily at rural men who are illiterate would begin to overcome the inertia apparent in this Muslim society. Such a campaign should be designed to present ideas simply, graphically and repeatedly in a way that large numbers of potential acceptors will be reached.

As described below, there are deficiencies in the quality of government-provided sterilization services which are vital to correct. They are identifiable and remedial over a time span which is dependent on the dedication and zeal of the BDG physicians and administrators responsible for the program.

In June and July 1980, two USAID-sponsored evaluations were conducted in Bangladesh and identified areas of the sterilization process which were associated with deaths related to the procedure. These evaluations were prompted by USAID/Dacca's awareness of increasing numbers of deaths in part associated with a large sterilization program but representing a key factor in a monitoring program to assure high quality services. A retrospective study of a sample of 28 sterilization-related deaths in Dacca and Rajshahi divisions was carried out by Dr. David Grimes and Dr. Herbert Peterson of the Center for Disease Control in Atlanta, Georgia.* Two temporal clusters of deaths were identified in the study period of January 1, 1979 to March 31, 1980. One was a group of deaths from infection after vasectomy performed in one clinic on July 19, 1979. Two other infectious deaths occurred in the same clinic--one earlier in July 1979 and a second in January 1980. The second cluster of deaths involved five tubectomy mortalities, three of which occurred on the same day in widely separated facilities but all of which were associated with a heat spell in which temperatures reached 40 degrees C (105.8 degrees F). The numerically leading cause of death from tubectomy was anesthesia overdose, which was the subject of a special investigation conducted by Dr. John Fishburne of Bowman-Gray School of Medicine, North Carolina.**

Recommendations produced by the two studies were recently transmitted to the Bangladesh Government and the Bangladesh Association for Voluntary Sterilization, the agencies responsible for the vast majority of the procedures in the country.

At the time of the present evaluation, it was apparent that women were still receiving large doses of premedication and were still anesthetized by drugs generally used for hypnotic and analgetic purposes. However, fewer drugs were given intravenously and this change in regimen is a step in the right direction.

Dr. Fishburne is scheduled to return to Bangladesh in December 1980, to continue his work with BAVS in order to establish a more suitable preoperative schedule of drugs. Dr. Fishburne will also concentrate on the dose and technique of administration of the local anesthetic which will represent another advance in the improvement of the anesthesia program.

*David A. Grimes and Herbert B. Peterson, "Sterilization Deaths in Bangladesh," July 3, 1980.

**John Fishburne, "Anesthesia Practices for Sterilization Operations in Bangladesh." American Public Health Association Report No. 582-047, July, 1980.

At the time of the 1977 sterilization campaign the Bangladesh government began a policy of paying compensation to families of people who die from a sterilization operation. This was apparently done to conform to a custom of monetary payment for death in accidental circumstances such as car or truck mishaps. An amount ranging from 2,000 to 5,000 Taka (US \$128-320) is given to the families of the deceased. As a result, Bangladesh has some of the best sterilization mortality data in the world. The validity of the Bangladesh data, in fact, may exceed data from the U.S. where ICD-9-CM coding* does not permit precise identification of postoperative deaths.

There is a twofold difference in sterilization mortality between the U.S. (10 per 100,000 cases) and Bangladesh (20 per 100,000 cases). Visits to Bangladeshi facilities for sterilization, however, suggest at least a 20-fold difference in average quality of services. U.S. support of a sterilization program can and should include ways and means of improving the standards of service. As a result, mortality and morbidity will decrease significantly.

A total of 14 sterilization facilities were visited during the present evaluation and five were inspected during the time patients were being evaluated and operated upon. Five were visited which had post-operative patients and preoperative clients. A final four units were inactive on the day visited.

A total of twelve tubectomies and one vasectomy were observed from the beginning of operation to conclusion. The techniques at the operating table by surgeon and assistant were acceptable.

Pre-operative procedures involving patients, equipment, general hygiene of surroundings, crowding of facilities, and over-scheduling, were the areas where problems appeared to be the most significant.

The present survey was undertaken with the view of identifying the areas of the sterilization program which require prompt attention in terms of improving safety and quality. This becomes particularly important because of the planned doubling of the number of procedures within the next year. More people will be at risk, and the significant increase in volume will further stress weak areas in personnel, facilities, and supply.

AID is about to negotiate an agreement with the BDG to provide monies to support the enlarging sterilization program. This is a critical time in which conditions can be agreed upon which will improve safety of the clients and the quality of the services

*ICD-9-CM: International Classification of Disease, 9th Edition, Clinical Modification.

they receive. Withholding support would adversely affect the people of Bangladesh and their opportunity for termination of child-bearing which many desperately wish. The ensuing details of evaluation are presented to emphasize the importance of AID support and encouragement. They are not presented to cast doubts on the value and needs of the program.

All the shortcomings documented are remedial. There is a large unmet demand for services. There is the technical expertise to provide them. The program requires attention to details which will make it safer and thus more effective and increasingly acceptable. A success in this area of birth control where there is a "felt need" will favorably reflect on future acceptance of other methods of family planning which are necessary for the younger, less parous women and men who will need and want pregnancy spacing measures.

In one area of the country where large numbers of sterilizations are performed, an evaluation of four government facilities revealed multiple deficiencies which jeopardized the safety of sterilization clients. Two maternal-child welfare centers, one thana health complex, and one "camp" situation at an otherwise unused thana health complex were visited on a three-day tour. A Bangladesh interpreter from the Population Division USAID/Dacca and a member of the government's MCH/FP division accompanied the evaluation team. On a prior field trip, four BAVS units and three government facilities had also been visited in a more superficial manner.

Unannounced visits to two busy centers where patients were evaluated and cleared for sterilization operations revealed in one instance that no physical examinations were performed. In another, examination forms had been filled out prior to any patient's screening. In one unit, the blood pressure cuff was stored away and after recovery could not be effectively used because there was no stethoscope. In another, blood pressures were being taken, but one of four that were checked showed a gross error: a recorded blood pressure of 110/80 was in actual fact 220/130. The patient in question was a 45 year old woman with irregular periods who had not had a child in several years and was probably perimenopausal. In all likelihood, she would have been accepted for a sterilization procedure had not her blood pressure been rechecked. The Bangladeshi physician accompanying the evaluation team on its visit talked with her and she returned home. A random sample of six patients were weighed to compare charted weights with actual weights. (100 pounds \pm 4 pounds were charted. Actual weights were 74 pounds \pm 4 pounds.) It was clear that the FWV could not reliably or accurately use the scale. On two occasions, a total of 10 patients were queried as to whether a pelvic examination had been performed. All denied they had been examined.

Questioning of FWVs revealed that they know what should be done. Watching FWVs, however, it was clear that they were slow and hesitant about simple and routine tasks, such as blood pressure taking

and weighing. Their theoretical orientation was appropriate but their practical abilities had not been sharpened by supervision, repetition and guidance.

Absence of basic laboratory data precludes satisfactory screening of clients and increased the likelihood of morbidity by permitting sick people to be subjected to elective surgery. The colorimetric evaluation of hemoglobin requires that a carefully measured amount of blood be completely delivered into a tube containing a small amount of solution which reduces the hemoglobin and changes its color to a brownish hue. The level hemoglobin is then estimated by careful dilution of the colored solution to a hue which matches a standard colored glass panel observed along side the test specimen.

The available tools and the functions of the laboratory which was observed and personally tested were unsatisfactory. The rubber aspirating tube attached to the pipette, which was to draw up the blood, was rotten, and blood could not smoothly be drawn into the pipette. The rubber tube was also so short that the pipette could not easily deliver the blood into the testing tube. The standard color panels were made virtually unusable because they were discolored by foreign material to the point of being a hue incapable of direct comparison with the test solution of blood.

In a second unit, there was no available hemoglobinometer. There were stock solutions to test urine for albumin and sugar. The FWV could describe verbally the tests that should have been done; however, they were not performed. The alcohol lamp used to heat the urine for these tests was new and had never been used.

The absence of basic laboratory observations prevents screening of high risk patients from a surgical procedure which may precipitate serious illness or death.

Aseptic technique is a chain of human endeavors no stronger than its weakest link. No matter how careful the operating team is at the time of surgery, incompletely cleaned or incompletely sterilized instruments will implant the seeds of infection. Instruments are boiled between cases. If the water is not at the boiling point as was observed in one unit visited, sterilization is incomplete. If instruments are removed prior to a satisfactory time of immersion in boiling water (30 minutes), sterilization is also incomplete. Drapes and sheets were on the floor and walked on in one unit visited. Observation of autoclave technique at another unit indicated insufficient time at appropriate steam pressure. On one occasion, the surgical gloves were drying on a plastic sheet outdoors in the noon sun, four of twelve tested were grossly defective. Moreover, the area surrounding the gloves was littered with the remains of surgery from the prior days. Old bloody gauze, sponges and discarded gloves were strewn about. One surgeon was reminded of a gross hole in his glove at which time he removed

the glove and replaced it with another. That same surgeon had rinsed his hands with water but not used any soap prior to gowning for the operation.

The first hours after surgery are the most critical time of recovery during which complications may be identified or prevented. Careful basic monitoring requires proficient personnel so that rounds on patients can be made reliably and regularly. Moreover space is necessary to make passage and maneuver possible. Adequate light to make observations is essential. An agreed upon standard of staffing and protocol of post operative care is a basic need, especially when large numbers of cases are being managed in short periods of time.

Operators as well as facilities can become overtaxed. A twelve procedure limit per operator for a single session has been recommended by government regulation, but on repeated occasions, it was observed to be exceeded by ten to twenty cases. The Bangladeshi observer with the evaluation team held several conferences with various levels of workers at the camp sterilization session which were the sites of the majority of the transgressions previously noted. While the FWVs, laboratory workers, and doctors were abashed and apologetic, there was no apparent willingness on their part or the part of the one TFPO in attendance to shoulder the responsibility for immediate or future corrections of the deficiencies.

Subsequent consultation with government officials elicited the fact that rewards within the system don't exist except for monetary payment for special services. Superior efforts are not recognized or rewarded. Poor behavior is not effectively corrected or censured.

Standard-setting and quality maintenance are difficult at present because the chain of command is unclear due to the recent integration of Health and MCH-FP services. Some individuals in the MCH-FP division have no current job description--for example, the assistant directors for MCH-FP at the district level. Such a person would be an obvious choice for supervisory duties; however, 75 percent of these positions are unfilled at present, primarily because of the difficulty in recruiting physicians into government MCH-FP jobs. These jobs are considered second-rate, slow to grant promotion, and dead-end positions because of the past history of MCH-FP within the bureaucratic system. For example, MCH-FP administrators and physicians are not considered civil service employees with all the benefits thereof, pay increases and promotion of MCH-FP people have been slower than on the health side; MCH-FP, while a vast undertaking has fewer clinical medical challenges than other more attractive medical fields. The major providers of services in the sterilization program are the thana medical officers (TMOs) assigned to MCH-FP who are recent graduates fulfilling a limited (two-year) service obligation.

The current effort at integration aims at placing MCH-FP under Health. Attempts will be made to draw help from a larger pool of young doctors and allow civil surgeons from health to supervise and be integrated into and become interested in MCH-FP. Promotions can be expected to come faster at some later date.

Work at the union (village level) is anticipated to be more efficient with integration because health workers will be trained in MCH-FP and MCH-FP workers will be trained in basic health care. Theoretically, there is much to recommend this approach.

A major difficulty with the integration process lies with the absorption of the middle and upper MCH-FP bureaucratic people who have been highly specialized over the years and oriented in a vertical way, which has run parallel but apart from the health section. While their expertise is necessary for the MCH-FP program, these people see some of their power ebbing with loss of control of budget and, to some degree, of personnel. In addition, chain of command and lines of authority will obviously change; however, the precise changes while feared by the MCH-FP group, have not been formulated or disseminated by the Minister and his immediate subordinates.

Since the nine-week sterilization campaign of 1977, monetary compensation has been provided to clients, fieldworkers, and clinic staff. The amounts have not changed since July 1978. The Ministry of Health and Population Control has recommended the following increases to compensate for the inflation of the past years.

	<u>Male</u>	<u>Female</u>
Food	Takas 16 (\$1.06)	Takas 48 (\$ 3.30)
Transportation	Takas 30 (\$2.00)	Takas 35 (\$ 2.33)**
Wage loss	Takas 60 (\$4.00)	Takas 40 (\$ 2.66)
New items of clothing given in kind	Takas 30 (\$2.00) (lungi)	Takas 50 (\$ 3.33) (sari)
<u>Totals:</u>	<u>Takas 136 (\$9.06)</u>	<u>Takas 173 (\$11.62)</u>

*Assumes three-day disability for tubectomy.
**Assumes transport of at least one child with client.

Clients coming to government sterilization units are often so poor that women borrow a neighbor's or relative's sari to appear in public. Many have no spare takas and so any venture away from home is far beyond their means. It may also be the first venture out of the compound other than visits to the woman's parents at the time of annual religious festivals. Food, transport, and wage loss compensations are realistic and--for many clients--necessary to permit them to leave their day-to-day struggle for survival.

Compensation for fieldworkers is five takas and only exceeds cost out of pocket (for the fieldworker's food and transportation expenses) if the worker escorts two or more clients who are accepted for sterilization. Not all are. At present 10 to 20 percent of clients coming in for sterilization are rejected due to current illness, anemia, or pregnancy. A fieldworker may escort three people, for example, and only one may be accepted.

Physicians are compensated 20 takas for either a vasectomy or tubectomy. Physicians are not motivators and are expected to take responsibility for preoperative evaluation and postoperative care.

Finally there is a cash payment to the supporting staff in the clinic. Every taka (approximately six cents U.S.) counts and a government directive apportions the following amounts to the respective helpers. (See Table 12.)

Table 12

Compensation Paid to Clinic Support Staff

<u>Task or Worker</u>	<u>Takas and U.S. Equivalent in Dollars</u>		
		<u>Tubectomy</u>	<u>Vasectomy</u>
1. Surgical Assistant	Takas	2.00 (\$.12)	2.00 (\$.12)
2. O.T. in-charge/Technical Asst. (Instrument boiling, IV or MI Inj., etc.)		2.00 (.12)	2.00 (.12)
3. Lab Technician (Urine Al and Hb% sugar)		1.00 (.06)	1.00 (.06)
4. P.V. Examination and B.P. (FWV)		0.50 (.03)	
5. Shaving		0.50 (.03)	0.50 (.03)
6. Stretcher Bearer		0.50 (.03)	--
7. Autoclaving (linen gloves, gauze, cotton, etc.) and vasectomy sheets and other linen		0.50 (.03)	0.50 (.03)
8. Sweeper		0.50 (.03)	0.50 (.03)
9. Washing (Tubectomy sheet gown, mask cap gloves) and vasectomy sheet and other linen		0.50 (.03)	0.50 (.03)
10. Aya		0.50 Peon(.03) FP (clinic)	0.50 (.03)
11. Night duty post operative ward (FWV or FWA or Staff nurse)		0.50 (.03)	--
12. Clinic "peon" for night duty		0.50 (.03)	--
13. Record and Returns (FP office Assistant)		<u>0.50 (.03)</u>	<u>0.50 (.03)</u>
	Takas	10.00 (\$.62)	8.0 (\$.48)

Source: Ministry of Health and Population Control, Population Control and Family Planning Division Memo No. 6-4/ISP-79, July 2, 1980.

14. USAID/DACCA POPULATION STAFFING

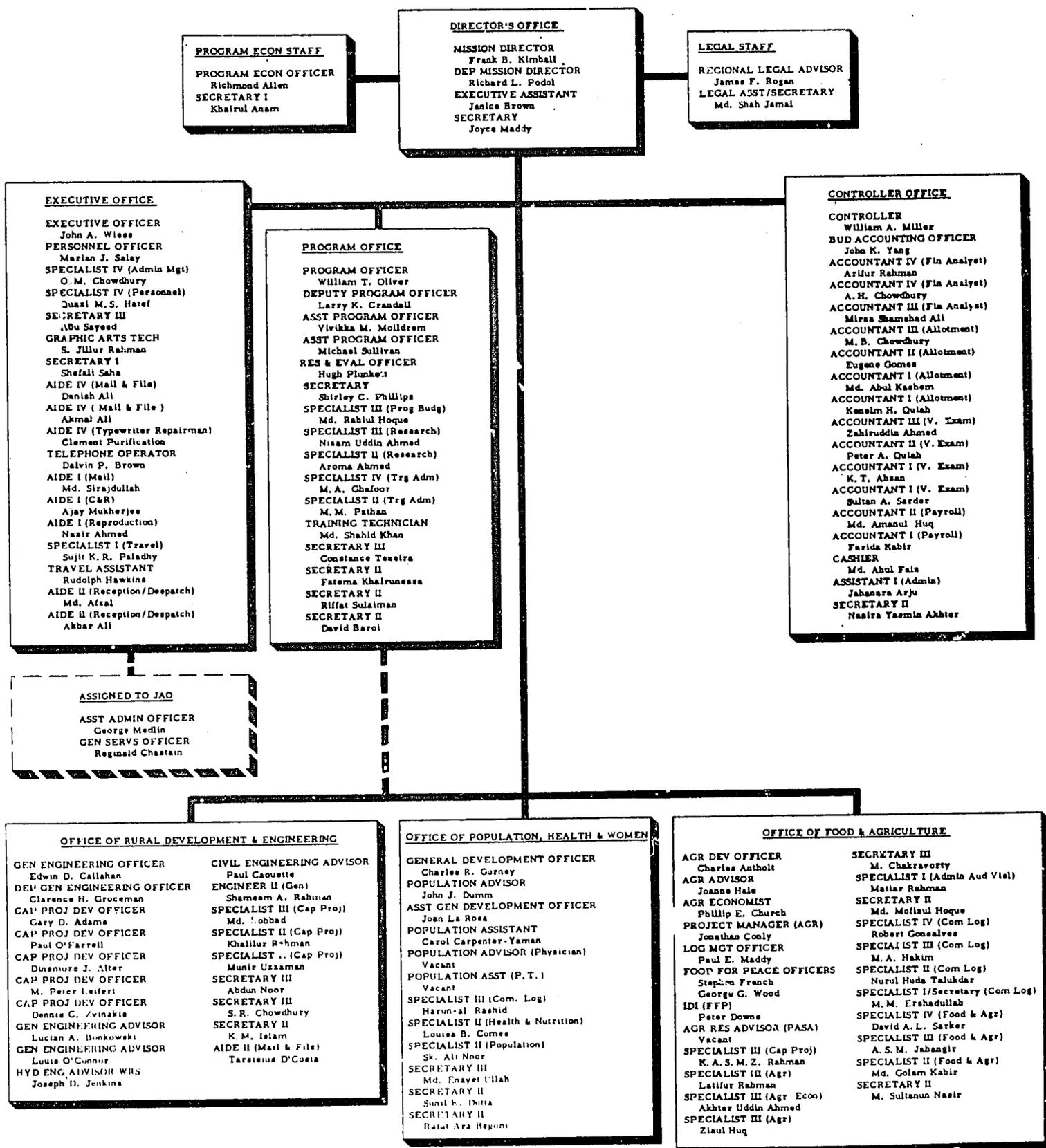
USAID/Dacca has been less than effectively staffed to meet the objectives of the present bilateral project and the coordination of the numerous AID/Washington centrally-funded project activities. This is especially true in comparison with other Asia missions, particularly Indonesia and the Philippines. From 1972/73 to early 1977 the Division of Health and Population had two U.S. direct-hire employees, one also having direct responsibility for the mission's health activities. From 1976 to 1978 there was also a U.S. direct-hire commodities specialist in the Controller's Office who worked more than half-time on contraceptive commodities and logistics. In 1976 a personal services contractor with both population and women-in-development responsibilities was added, and in early 1977 an additional U.S. direct-hire population officer was assigned. In 1978 the Division changed its name from Health and Population to Population, Health, and Women-in-Development (PHAW) and a fourth U.S. direct-hire with primarily health and women-in-development responsibilities was assigned. In early 1979 one of the Division staff transferred to AID/Washington, another transferred to the mission's Program Office, and the personal services contract came to an end. The direct-hire vacancies were not filled until early 1980, so during much of 1979 the PHAW Division was about half-strength and, while primarily engaged in population work, also had other mission activities to monitor. (See USAID/Dacca's organizational chart, Chart 4 below.)

By mid-1980, two additional positions (SPARS) had been approved and recruitment begun for (a) a physician (educator-clinician to work half-time in the sterilization program and half-time in general family planning and health), and (b) a part-time employee to be responsible for bringing about changes mission-wide in accord with AID's 104d legislation. The new project paper proposes one more U.S. position. This incumbent would be responsible for monitoring the AID-financed intermediary organizations operating in Bangladesh.

It is essential that AID/Washington give full support to the mission's request for staffing, it being particularly urgent to recruit and assign a physician and to locate early on a person to fill the position of Deputy Chief, PHAW, which becomes vacant in early 1981. In addition the mission should seriously consider underscoring its population priority by designating and reorienting PHAW into a Population Division in which other activities (i.e., health education, nutrition, and women-in-development) are subordinate to and undertaken only as they relate to the mission's population objectives.

The new project will be extremely labor intensive--considerably more so even than the present project. Its strategy demands this be so and changing it to be less labor intensive would almost certainly diminish its chances of success. In addition, the mission's declared

ORGANIZATIONAL CHART, USAID/DACCA, BANGLADESH.



(and laudable) plan to revise its entire portfolio so that all projects--or at least all new projects--contribute to reducing fertility will require extra work for the population staff. USAID/Dacca and AID/Washington should both realize that the difference between success and failure of the new project may be determined in large part by whether or not adequate steps are taken so that USAID/Dacca has appropriate staffing for this high priority.

15. BEYOND FAMILY PLANNING

The phrase, "beyond family planning" refers to those measures a society and its government can take, in addition to the delivery of contraceptive services, that will encourage lowered fertility and a smaller family size norm. Frequently it refers specifically to a variety of incentives and disincentives to achieve lowered fertility as well as to legal actions supportive of that end, such as raising the age of marriage. Professor Garrett Hardin, years ago, termed it "mutual coercion by mutual consent." *

The concept of "beyond family planning" has achieved political legitimacy at the policy level in Bangladesh although few attempts have been made thus far to translate such policy into program implementation. The Second Five-Year Plan (1980-85), for example, addresses the need for social, economic, and legal measures and a system of incentives and disincentives favoring a small family norm. Further, the plan goes on to outline the need to engage other development agencies--such as village cooperative, Swanrivar committees, labor organizations, women's groups, and local government--in birth planning activities. Clearly, the policy framework is in place; what is needed is a translation of this policy into specific government-supported activities.

Linkages between the provision of birth control services and other social support measures that could be considered by a modern state when implementing a vigorous fertility control program are represented in charts 4 and 5 below. If, because of either perceived necessity or desperation, the adoption of a "coercive" policy posture is to be avoided at some future date, then it behooves a program to evolve and move deliberately toward a comprehensive and moderately restrictive policy without delay.

It is not possible to prescribe here specific actions that should be taken by either the government of Bangladesh or USAID/Dacca, but several observations are offered that program planners should take into account when considering "beyond family planning" measures. These are:

1. Recognize that a "quick fix" is not possible and that no single technological intervention can produce a reduction in fertility. Instead, a series of reinforcing actions should be considered.
2. Adopt a policy and program of operations research that tests a variety of interventions on a modest scale before making a national commitment that may prove unworkable.

* Garrett Hardin, "The Tragedy of the Commons." Science, December 13, 1968.

CHART 5

IMPLEMENTATION OF FERTILITY CONTROL PROGRAMS IN DEVELOPING SOCIETIES

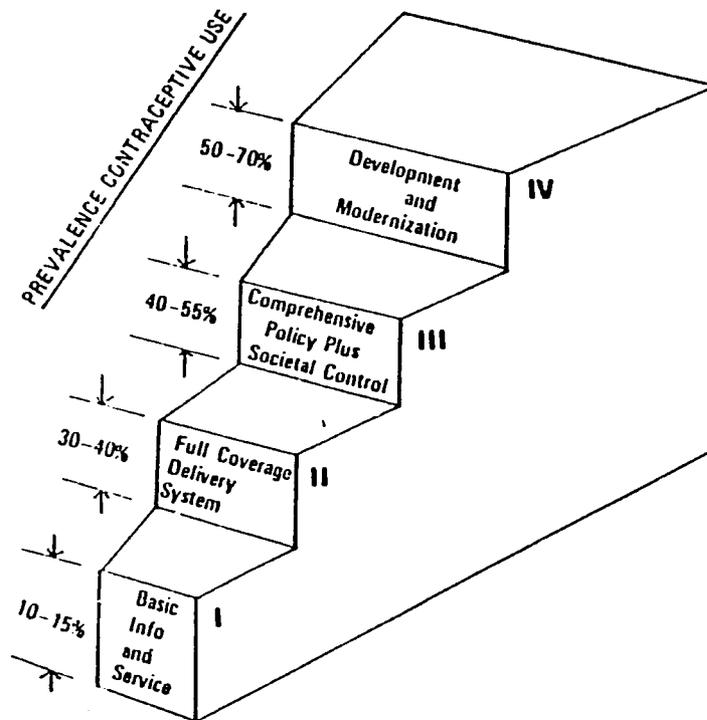


Figure 1
Stages of
Fertility Control Programs Against
the Backdrop of Development and
Modernization

Figure 2
INTER-RELATIONSHIP FERTILITY CONTROL PROGRAMS
AND DEVELOPMENT - MODERNIZATION

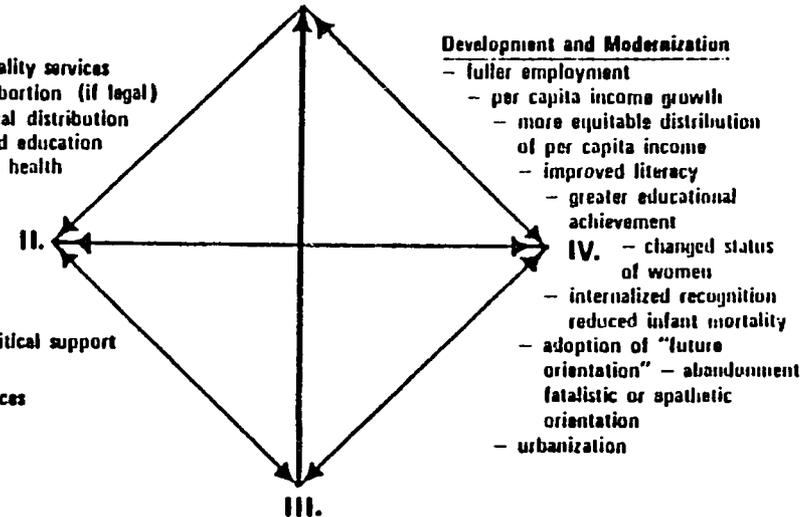
Full Coverage Delivery System

- universal access to quality services
- use all methods plus abortion (if legal)
- commercial and non-clinical distribution
- sophisticated information and education
- integration with maternal-child health
- improved level general public health services
- good administration
- quality evaluation
- "soft" population policy
- adequate budget and political support
- incentives
- village-centered services

I. Provide Basic Information and Services

Development and Modernization

- fuller employment
- per capita income growth
- more equitable distribution of per capita income
- improved literacy
- greater educational achievement
- changed status of women
- internalized recognition reduced infant mortality
- adoption of "future orientation" - abandonment fatalistic or apathetic orientation
- urbanization

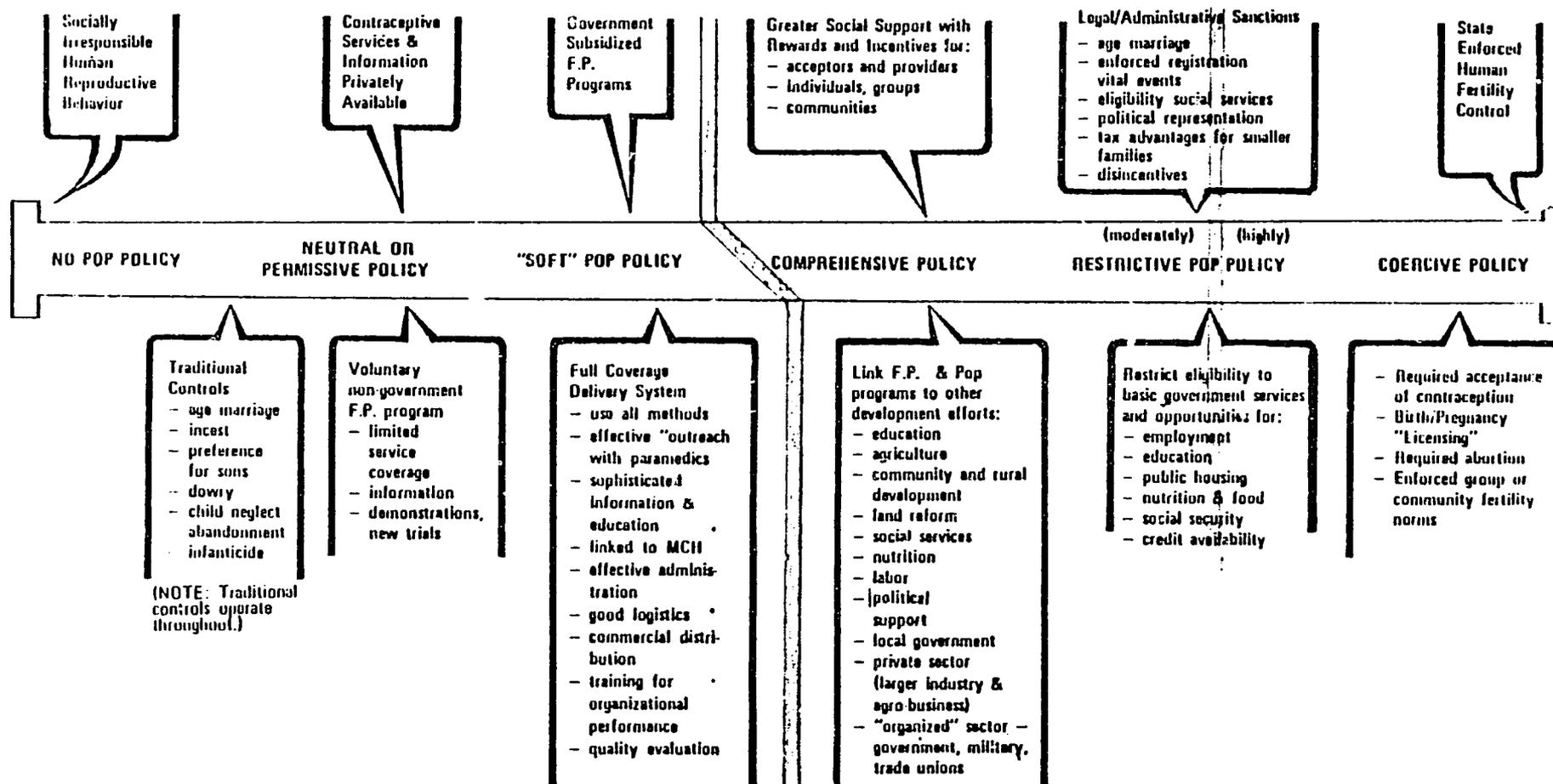


III. Comprehensive Program with Increased Societal Control "mutual coercion by mutual consent"

- adoption of "comprehensive" population policy
- wider use of incentives; for individuals, groups, communities
- legal changes, e.g. raised age of marriage
- access to social services according to fertility behavior
- sustained political support
- dynamic leadership
- link to other development activities

CHART 6

SPECTRUM OF EXTERNAL INFLUENCES AFFECTING FERTILITY BEHAVIOR



Trial-and-error experimentation will prove more useful than grand strategies applied without field testing.

3. Anticipate the needs for beyond-family-planning interventions now by engaging technical assistance in preliminary planning and design activities. USAID/Dacca is encouraged to call on resources available from the Population Council, the Research Triangle Institute, and the Battelle Memorial Foundation--all now funded by AID/Washington to provide policy assistance to host countries and USAID missions.
4. Take advantage of what has been tried and proven workable in other societies and programs. Adaptation should be the guideline, not necessarily adoption.
5. USAID/Dacca should consider drawing on the social science expertise of other USAID missions, particularly that of Dr. Gary Merritt in New Delhi and Dr. David Mutchler in Kathmandu, for preliminary and possible continuing technical assistance.
6. Analyze the reasons why several areas in rural Bangladesh have achieved high levels of contraceptive prevalence (some reportedly over 40 percent) to identify the mix of services, local support, leadership, and community participation that have made this possible. Again, the use of operations research funds available to the program would appear to be the most direct way to proceed.
7. Avoid "locking" into long-term and costly schemes such as social security and continuing subsidies which may prove to have lower cost-benefit and cost-effectiveness ratios than other interventions.

At the policy level, the government of Bangladesh has largely resolved the debate over whether "development is the best pill" or whether birth control can be expected to succeed without important socioeconomic change. Based on planning documents, statements by the country's highest leaders, and program guidelines, it appears that development and fertility control reinforce one another and that the task ahead is to promote both in ways that contribute to slowing population growth while building a viable economy and social structure.

16. DONOR COORDINATION

Effective cooperation has evolved, particularly during the past three years, among the World Bank, the UNFPA, and AID, the major external donors supporting the Bangladesh population program. Due in large part to the personal commitment and high degree of professional competence of the three donors' Dacca-based population advisors, the result of this cooperation has been a more rational allocation of resources, a more coherent division of labor among them, and a better quality and matching of external assistance to Bangladesh needs.

Each of the donors supports a large portfolio of activities. The major activity areas of the World Bank and the UNFPA are the following.

The World Bank (IBRD)

First project, 1975-1980

- Funding: \$15 million IDA loan; \$30 million in grants from participating donor governments; total, \$45 million.
- Activities: Supports construction of eight thana-level field training sites; construction of family welfare units, model clinics in four medical colleges, salaries for 8,000 fieldworkers, establishment of an External Evaluation Unit (for population and family planning) in the BDG Planning Commission, information activities in the Ministries of Education, Labor, Agriculture, and Health and Population Control, training centers for family welfare visitors, and technical assistance for improving program management.
- Personnel: One full-time resident advisor (presently K. A. Pisharoti, Ph. D.) plus several contract advisors.

Second project. This is now on stream and may provide funds totaling \$110 million consisting of a \$32 million IDA loan, \$68 million from bilateral donors, and \$10 million from the government of Bangladesh. *

UNFPA (United Nations Fund for Population Activities)

First project, authorized 1974

- Period: three to five years (implementation not fully begun until 1976-77).
- Funding: \$10 million.

* See Bangladesh: Staff Appraisal of a Second Population and Family Health Project. Washington, D.C., World Bank Report No. 2323-BD, May 1979.

-Activities: Processing 1974 census data, population dynamics research, commodities including injectables (Noristerat and Depo-provera), drugs related to MCH, medical kits, and population education in schools, cooperatives, and Ministries of Labor and Agriculture.

Second project, authorized 1979

- Proposed funding: \$50 million.
- Activities: \$5.0 million for 1981 census enumeration (almost all census costs), training, service delivery, and fieldworker salaries (\$9.3 million), small grant program of Social Science Research Council of Bangladesh, and population planning unit within BDG Planning Commission. An estimated 60 percent of UNFPA support is now directed to service delivery including training and logistics.
- Personnel: Full-time resident representative (presently Dr. Richard Moore); approximately 25 additional expatriate staff including contractors.

The Future

Obviously, the focal point for donor coordination should remain in Dacca where the donor representatives have more current knowledge of program issues and plans than their respective headquarters' staffs. To maintain the kind of harmonious, well-established, and professional dialogue that has characterized the donor relationship during recent years, it behooves AID and the other major donors to insure that their senior population staff continue to be of the highest calibre with solid field and technical qualifications.

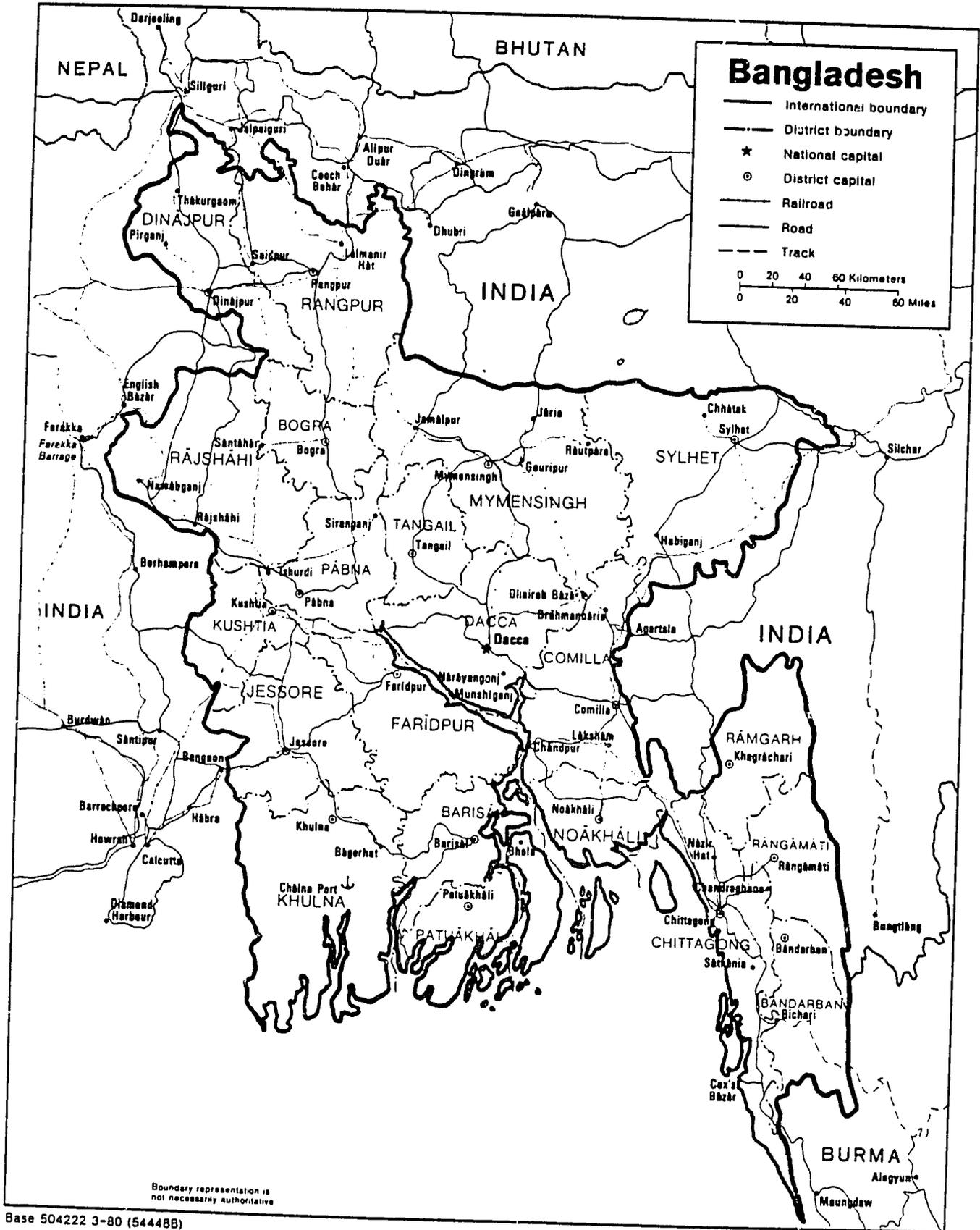
Numerous issues will continue to confront the donors, a key one being the problem of how to avoid overburdening the government with separate initiatives and attendant missions. The problem has no easy solutions. On the one hand, while some of this overburdening will continue to be unavoidable given the different donors' different capacities and interests, nevertheless much more could be done to field joint missions, preferably with participation by permanent donor headquarters staffs, than has been the case thus far. For example, if concerns about the quality and safety of the voluntary sterilization program merit further special attention and affect collective decisions about various kinds of support actions (i.e., surveillance monitoring, resident advisors, incentive payments, and commodity support) then joint missions should be considered. Likewise, as Bangladesh begins to consider the range and options of "beyond family planning" measures, joint participation in feasibility and project design would seem desirable. Previous combined AID-World Bank missions in Egypt and Thailand are useful precedents. On the other hand, the differences in operating styles and strategies among the different donors--for example, the World Bank's relatively conservative

construction-oriented approach vs. AID's greater emphasis on innovation and risk-taking--might in many cases make it disadvantageous to invest time in reaching the consensus necessary for fielding joint teams.

Finally, donors should remain alert to a possibility to which one of their senior representatives called attention during the course of the present valuation. That is, given the large amount of donor resources made available for population programming, there is some risk that BDG contributions will either actually decline or not increase sufficiently in what must remain essentially a Bangladesh development program.

Appendix A

MAP OF BANGLADESH



Appendix B

ACRONYMS USED IN REPORT

Acronyms Specific to Bangladesh

BAVS	Bangladesh Association for Voluntary Sterilization
BDG	Bangladesh government
BFS	Bangladesh Fertility Survey (part of World Fertility Survey)
CMO	Chief male organizer
FPA	Family planning assistant
FWA	Family welfare assistant
FWC	Family welfare center
FWV	Family welfare visitor
FWVTI	Family Welfare Visitor Training Institute
FWW	Family welfare worker
LFPV	Lady family planning visitor
MCH/FP	Maternal and child health and family planning
MOHPC	Ministry of Health and Population Control
NIPORT	National Institute of Population Research and Training
PCFP (or PCFPD)	Population Control and Family Planning Division (of MOHPC)
TFPO	Thana family planning officer
THC	Thana health complex
TMO	Thana medical officer
ZPG	Zero Population Growth Project (of BDG)

Acronyms Specific to AID

AID/W	AID headquarters in Washington, D.C.
FSN	Foreign Service National (employed by AID)
IDI	International Development Intern
PHAW	Population, Health, and Women's Division (of USAID/Dacca)
USAID/Dacca	Permanent AID mission in Dacca

Other Acronyms

CDC	Center for Disease Control, Atlanta
FPIA	Family Planning International Assistance
IDA	International Development Association (of World Bank)
IEC	Information, Education, and Communication
IEM	Information, Education, and Motivation
IPPF	International Planned Parenthood Federation
KAP	Knowledge, attitudes, and practice (of family planning)
MCH	Maternal and child health
MR	Menstrual regulation
NRR	Net reproduction rate
PSI	Population Services International
UNFPA	United Nations Fund for Population Activities
WFS	World Fertility Survey
WHO	World Health Organization

Appendix C

METHODOLOGY, SCOPE OF WORK, AND RECOMMENDATIONS FOR FUTURE EVALUATIONS

Methodology

Planning for the Evaluation. The decision to conduct a comprehensive, in-depth program evaluation was made in February 1979, on the recommendation of the Asia Bureau's population advisor, Dr. Steven Sinding, at the time when authorization was signed to extend the FY 76-78 project for two additional years and to increase its budget by US \$8.57 million. An amount of \$70,000 was at that time budgeted for the evaluation. Subsequently USAID/Dacca's population advisor, Mr. John Dumm, requested an evaluation similar to that conducted in Indonesia in 1979 including an evaluation team of similar composition.* (The Indonesia team had included both AID/Washington and non-AID personnel--two men and one woman--and consisted of a family planning program specialist, a public health physician, and a medical anthropologist, all three of whom had prior experience in family planning evaluation.) A team of similar composition was selected by Mr. Michael Jordan, who had then replaced Sinding as the Asia Bureau's population advisor. Dr. Barbara Pillsbury, who had been a member of the Indonesia team, was identified to be team leader for the Bangladesh evaluation and a scope of work for the evaluation was developed. Despite initial interest in including Bangladeshis as full members of the evaluation team, it was eventually decided only to have the team accompanied on field visits by Bangladeshi employees of USAID/Dacca. This was done although they did not participate in the summative analysis or writing of the report.

Scope of Work. The scope of work for the evaluation (see pages C-7 through C-10 below) was developed with three competing purposes in mind: first, to permit the evaluation to assist the mission by providing answers to questions it regarded as important; second, to produce a report that could be used by AID/Washington for decision-making concerning family planning and related issues in Bangladesh; and third, to produce a report that could be used by AID/Washington and other USAID missions to improve understanding of what makes for effective family planning programming and assistance. USAID/Dacca was therefore asked by the Asia Bureau's population and evaluation advisors to specify questions it wanted the team to answer and these were then rounded out with questions

* AID's Role in Indonesian Family Planning: A Case Study with General Lessons for Foreign Assistance, by James R. Heiby, Gayl D. Ness, and Barbara L. K. Pillsbury. Washington D.C., AID Program Evaluation Report No. 2, December 1979.

and guidance that would produce a report useful to others not fully versed in the details of the Bangladesh program. The proposed scope of work was then cabled to the mission and the mission asked to specify key documents that the evaluation team should have read in order to arrive in Dacca adequately prepared with a substantive and fairly current understanding of the program. These documents were made available to each team member by the bureau's population advisor.

In-Field Methodology. The evaluation consisted of the amassing and analysis of data drawn from the following sources: (1) documentation--from USAID files--and other published and unpublished reports; (2) interviews with family planning and non-family planning personnel in Dacca and in five of Bangladesh's 19 administrative districts outside Dacca; and (3) observations of clinic, teaching, administrative, and village activities in Dacca and the five rural districts. The first of the four weeks in-country was spent in background reading and interviews in Dacca. During the second week the team was together in the field where the strategy was to spend enough time together in site visits to develop a common base of observation but to split up at each particular thana in order to more fully cover the different aspects of the program. (Thus having arrived at a thana health complex, for example, the team's family planning program specialist sought out the thana family planning officer and his or her assistants while the physician-member of the team attempted to engage himself in discussion with the staff physicians and paramedics and the anthropologist attempted to accompany fieldworkers on rounds into one of the nearby villages.) During the third week the team split up with one member remaining in Dacca and the other two making site visits in different rural districts. Interviewing during field visits was sufficiently open-ended to deal with the considerably differing situations encountered but also semi-structured through the use of a series of questions composed by the team for this purpose (see "Data Gathering Guide for Field Visits," pages C-11 and C-12 below). The fourth and final week was devoted to follow-up interviews in Dacca, preparation of a draft report, and debriefings with mission personnel and the U.S. ambassador.

Preparation of and Action on Report. A very rough draft of the report left behind with the mission when the team departed at the end of week four. Following a 10-day assignment in Nepal, the team leader was able to return to Dacca for a two-day period in order to discuss mission comments on the draft report. Immediately upon return to Washington a near-final version of Parts I and II of the report was readied and circulated widely in AID/Washington and a debriefing by the team conducted for those persons who would, only a day or so later, be reviewing and making final decisions on the USAID/Dacca's proposed new population and family planning project. The full report was available for consultation upon request but not finalized for general circulation until later.

Recommendations for Future Evaluations.

1. Purpose(s) of and audience(s) for the evaluation must be perfectly clear, specified in the scope of work and, in case of an evaluation with multiple purposes, not conflicting given the limited time available for the evaluation. Because of the somewhat conflicting--or at least divergent--purposes set forth for the present evaluation, the four weeks time in the field was simply not adequate for gathering and presenting concrete evidence to fully answer all the questions set forth in the scope of work. The evaluation was originally specified (in 1977) with the intent of serving mission purposes--both with regard to mission information needs and, perhaps more importantly, knowing that the mission would at some future time need to be able to point to having had a comprehensive evaluation in order to get approval from AID/Washington to move ahead with new population and family planning initiatives. Subsequently, because of AID/Washington information needs, it was decided that the evaluation should simultaneously attempt to gather evidence to help AID planners to better understand, in a general way, the factors contributing to the likelihood of family planning program success in any given country (see Scope of Work). Finally, just prior to the departure of the evaluation team for Bangladesh, concern over the sterilization component of the Bangladesh program became a major worry among certain key decision-makers in AID/Washington.* As a result, investigating the pros and cons of increased support for the BDG sterilization component became an additional purpose of the evaluation--and one rather out of proportion to the relatively limited AID involvement to date in BDG sterilization activities. The end result of these multiple purposes and audiences was the inability of the team to fully document, during the time available, complete answers to the questions posed. This contributed to a certain amount of last-minute chaos and pressure on mission staff as the team sought to ready a draft report before departure from Dacca as well as to a considerable delay in preparing the final report after return to Washington.

2. Greater emphasis should be given to providing concrete evidence to support conclusions reached by the evaluators rather than simply reporting what the team "feels" and "believes"--as tends to be the case in many AID evaluations. To happen, this requires (a) emphasis in both the scope of work and in pre-departure briefings of the evaluation team and (b) more time for conducting and writing up the evaluation. It is not uncommon for example, for an evaluation to assert that

*Specifically, concern over the occurrence of deaths due to sterilization, the proposed plans of USAID/Dacca to increase funding for sterilization, and the nervousness of World Bank personnel over the World Bank's proposed commitment to join AID in funding the sterilization component.

"The government of X country has greatly increased its commitment to Such-and-such Program" without presenting a scrap of evidence for reaching such a conclusion. Recognizing this, the present team sought to gather and present explicit evidence to back up all conclusions and assertions made. It fell short of its goal, however, primarily because of lack of time available for writing up the report. The report was organized in such a way that its Parts I and II present the major conclusions reached by the team while Part V was to present all the evidence (findings and analysis) on the basis of which the conclusions were reached. As it presently stands, Part V has not been fully completed. Once back in the U.S., high priority was attached by AID/Washington's Asia Bureau to finalizing at once Parts I and II so that they could circulate widely prior to the review about a week later of USAID/Dacca's new population and family planning project paper. This was done promptly and satisfactorily. However, having met this urgent priority, the two team members from AID/Washington were obliged to return immediately to a backlog of unrelated work that had accumulated during their absence and, shortly thereafter, the team leader was again sent out to Asia on a new two-month assignment. Consequently none of the team was able to free up enough time to adequately complete all sections of Part V and fully present the evidence on which the Parts I and II were based.

3. AID/Washington needs to make available realistic guidance on alternative methodologies that can be used for various types of evaluations. AID has now developed guidance for short-duration (i.e., three- to four-week) impact evaluations intended primarily to meet AID/Washington needs. AID has not yet succeeded, however, in bringing together realistic, easily utilizable guidance on methodologies to meet various mission and other evaluation purposes. This is sorely needed to move evaluation further from the realm of rural "windshield tourism" to serious analysis. At present teams have neither adequate guidance nor adequate time to do high-quality, professional-level evaluations. Better guidance could greatly enhance the quality and utilization of AID evaluations without necessarily greatly increasing the time allocated to each effort. In the absence of good guidance, however, more time is needed for field investigation and write-up. To be useful, such guidance should set forth a number of alternative strategies and approaches without rigidly requiring adherence to any one as "the solution."

4. More effort should be put into advance preparation for the evaluation prior to the arrival in-country of the full evaluation team. Often teams arrive for an evaluation without even having read the project paper. In the case of the present evaluation, the mission was asked by AID/Washington to specify the key documents that each team member should have become familiar with prior to arrival in Dacca; these were then made available by AID/Washington.

This should be a minimum requirement of all evaluations. The team leader also did considerable background reading on Bangladesh development problems in general and, prior to departing for Bangladesh, prepared a rough draft of what became Parts III and IV of this report. Other types of pre-field preparation that should be adopted on a regular basis are (a) well-organized comprehensive briefing sessions with the full team working together, not diverted by competing responsibilities, for a several-day period; (b) a preliminary phase of the evaluation in which quantified (or quantifiable) data are brought together in a form that makes them readily available to the team for analysis during the actual field evaluation; (c) preparation of overview reports by mission and /or host-country personnel of project progress (including strengths and weaknesses) to date; and (d) arrival of one or more team members in advance of the full team in order to handle routine preparation necessary before the team can begin serious analytic work.

5. Increased host-country participation should be a goal in all evaluations.

originally proposed that the team for the present evaluation should include Bangladeshi counterparts. After considerable Dacca-Washington discussion, however, it was decided that Bangladeshi employees of the mission should assist the team rather than bring in national population program staff or Bangladeshi social scientists. There is considerable evidence, however, that evaluations conducted without participation of representatives from host-country implementing agencies tend to sit on shelves or at most have only a minimal impact on subsequent program implementation. By way of contrast, one might note the 1978 evaluation of the Philippine population program--an evaluation that was conducted by a joint U.S.-Filipino team and the report of which has served as a basis for day-to-day action and decision-making in the subsequent years. While increased host-country participation involves certain frequently mentioned trade-offs (e.g. mincing of words due to the Asian reluctance to criticize others), benefits are likely to outweigh the liabilities.

6. A new standard format for evaluation reports should be developed for the purposes of making the organization of data easier for the evaluators and the final report more easily utilizable by the audiences for which it is intended. That AID's old "PES" format does not permit evaluation reports to be easily utilized outside the immediate project context is evidenced, among other things, by the fact that the Impact Evaluation series initiated by AID in late 1979 found it necessary to deviate from that format and develop a new one. At the same time, the Impact Evaluation requirement that the body of the report be no longer than 15 pages makes it impossible to provide adequate evidence for conclusions presented such that persons unfamiliar with the project can confidently make

detailed decisions about future investments. The format in which the present report has been produced is presented as a possible alternative for use in working toward one or more optimal solutions.

7. Economic analysis should become a more regular or important element of evaluations. For future evaluations in the population sector, it is suggested that evaluators consult Warren C. Robinson and Wayne A. Schutjer, "A Study of Economic Evaluation Procedures for Population-Related Projects" (American Public Health Association, November, 1979, produced under contract AID/PHA-C-1100).

Bangladesh
AID SUPPORT TO FAMILY PLANNING IN BANGLADESH, 1972-1980
Scope of Work for Program Evaluation

I. Background. Since 1972, the U.S. government has spent well over \$40 million toward helping Bangladesh bring its rapid population growth under control. This assistance has been channeled through relief and rehabilitation programs, two bilateral population and family planning projects, AID/Washington centrally-funded population intermediaries, and also through multilateral organizations. Specific project activities undertaken thus far by AID in support of Bangladesh family planning goals include:

1. Bilateral project 388-0001 (FY 76-77-78 plus FY 79-80 extension),
2. Bilateral project 388-11-580-001 (FY 73-74-75), and
3. Centrally-funded activities, primarily through:
 - a. Bangladesh Association for Voluntary Sterilization,
 - b. Population Services International (Social Marketing Project),
 - c. Family Planning International Assistance, and
 - d. Pathfinder.

USAID/Dacca is now proposing that a three-year follow-on project be funded for an additional \$68 million. However, despite several early internal evaluations and numerous evaluative studies of specific components of the program, no comprehensive, external evaluation has been undertaken to date to assess and report on the overall outcome of the previous eight years' investment.

II. Purpose and Timing of the Present Evaluation. The purposes of the present evaluation are, therefore, the following.

1. To assess performance to date of AID/W and USAID/Dacca in helping meet the goal of reduced fertility in Bangladesh;
2. To make recommendations for improved AID effectiveness in proposed new family planning and population activities in Bangladesh; and
3. To make recommendations for improved effectiveness of AID family planning assistance elsewhere.

The evaluation is to take place during fall, 1980, so that its findings and recommendations will be available prior to AID/Washington's review of USAID/Dacca's new project paper and in time to be incorporated in the project paper and corresponding authorization and agreement documents as they are finalized.

III. Content of the Report and Questions It Will Answer. This scope of work has been prepared taking into consideration the USAID/Dacca request for a program evaluation similar to that reported in "AID's Role in Indonesian Family Planning: A Case Study with General Lessons for Foreign Assistance" (December, 1979). The scope incorporates questions specified by USAID/Dacca (Dacca 2794) and derives from the research design for an earlier proposed cross-national study of family planning program effectiveness. (See "Study of Family Planning Program Effectiveness," by Steven Sinding, AID Evaluation Discussion Paper No. 5. April, 1979.) The body of the report should first set forth:

1. The general Bangladesh development setting;
2. The general Bangladesh family planning context (both at inception of AID support and at present), discussing as necessary to understand AID performance;
 - a. Impact: Impacts to date of family planning/population efforts (including notable areas of success such as high prevalence rates in certain districts);
 - b. Effectiveness: Factors explaining impact or lack thereof:
 - i. Political commitment and articulation and implementation of resultant policies;
 - ii. Administrative capability, specifically effectiveness of:
 - service delivery,
 - training,
 - logistics,
 - IEC,
 - research, and
 - demographic measurement or MIS (management information system) monitoring and feedback;
 - iii. Socioeconomic and cultural determinants of fertility and family planning acceptance; and
3. The strategy (goals, purposes, and component elements) of the AID program of support (brief).

The body of the report should then answer the following questions:

4. *To what extent has AID met its objectives (purposes and goals) as stated in the project papers?

*Asterisked items are those specified by USAID/Dacca (Dacca 2794).

- a. If objectives were not met, why not?
 - b. If economic and social analyses were conducted for the projects, how useful were they? Were the projects' assumptions accurate?
 - c. What were the specific strengths of AID in working toward project objectives?
 - d. *How flexible was AID in implementing the project? How did this influence achievements?
 - e. To what extent did AID internal restrictions and bureaucratic requirements act as constraints to implementation and responding to new opportunities?
 - f. *What is the Bangladesh government's perception of USAID effectiveness and responsiveness as a population donor?
5. What could AID have done to support fertility reduction in Bangladesh that it did not do?
- a. What other combination of program elements could have achieved the same results with fewer resources?
 - b. Could the same amount of resources, if programmed differently, have achieved a greater impact?
6. *What was the nature of donor coordination and how did it influence project implementation?
7. Where should AID go from here in assisting Bangladesh's population and family planning efforts?
- a. In family planning activities per se, noting especially present concerns regarding:
 - promotion of sterilization at possible expense of other program methods,
 - questionable effectiveness of integration scheme, and
 - feasibility of incentive schemes and financing thereof;
 - b. *In "beyond family planning" activities?

IV. Team Composition. The team will be made up of three U.S. professionals, none of whom have had direct prior involvement with AID family planning efforts in Bangladesh but all of whom have had previous family planning program implementation and/or evaluation experience. The team is to include both AID and non-AID personnel; ideally these would include a family planning program

specialist, a public health/family planning physician, and a social scientist--at least one of whom is a woman and at least one of whom is fluent in Bengali.

V. Methodology. Analysis and conclusions will be based on data gathered during a four-week period from the following sources:

- Review of relevant mission records and files;
- Reading of literature on general socioeconomic development and on family planning and population dynamics in Bangladesh;
- Interviews with Bangladesh and USAID personnel responsible for implementing the AID-assisted projects and programs;
- Interviews with Bangladesh and U.S. personnel familiar with but not directly responsible for the projects and programs;
- Interviews with rural and urban Bangladeshis using family planning methods through the AID-supported programs, through other programs and not using family planning; and
- Observation of program operations and related activities.

VII. Reporting Requirements. The report will adhere to the following format:

1. Executive summary (two pages, single spaced, including statement of purpose of the projects reviewed and of the evaluation);
2. Project Identification Data Facesheet;
3. Statement of major conclusions and recommendations (short and succinct);
4. Body of report; and
5. Appendices as necessary (including, minimally, this scope of work and detailed statement of methodology used).

A copy of the draft report will be presented to the mission prior to the team's departure from Dacca. Following incorporation of comments from USAID/Dacca, copies of the report (or at least parts 1, 2, and 3 above) will be circulated in AID/Washington for review prior to the review of USAID/Dacca's new project paper.

Data Gathering Guide for Field Visits

1. Introduce purpose of visit
2. Overview of administrative units (thanas, unions, wards) and numbers of workers of each type
3. Socioeconomic overview
 - a. Percent of landowning/landless?
 - b. Major industry, crops, small-scale industry, new industry?
 - c. Last crop year good or bad?
 - d. Percent children in primary school (male/female)?
 - e. Problems perceived in area:
 - i. general?
 - ii. two main health problems?
 - f. Attitude of religious leaders (Do they support more today than, e.g., five years ago?)
4. Contraceptive supply and use
 - a. How get to this level?
 - b. Condition? Shortages? Difficulty in getting?
 - c. Adequacy of storage space?
 - d. Use of first-in first-out procedures?
 - e. Records
 - i. Supply: stock on hand at time of visit and average monthly requirements?
 - ii. Acceptors?
 - iii. Total population and percent MCRA's (married couples of reproductive age)?
 - f. Method mix
 - i. New acceptor trends?
 - ii. Prevalence if known?
 - iii. Offtake: Activity by method during last quarter?
 - iv. Cumulative IUDs and voluntary sterilizations?
 - v. Sterilization consent forms?
 - g. Side effects
 - i. Actual (and actual perceived)?
 - ii. Rumors (and false "knowledge")?
 - iii. How do you deal with? What do you say about?
 - h. Supervision (and distribution)
 - i. Use check list?
 - ii. What type of reports/reporting?
 - iii. Problems (include ease or difficulty of getting supplies)?
 - iv. Frequency of visits?
 - v. What do they do when visit?

- i. Training
 - i. How long, where, and by whom?
 - ii. What were main things taught?
 - iii. What taught about side effects?
- j. Motivation
 - i. How do?
 - ii. Reasons for resistance?
- k. Fieldworkers at all levels
 - i. Get salary on time?
 - ii. Transportation
 - What used?
 - How reimbursed?
 - iii. Own marital, reproductive, and family planning history
 - iv. Referral patterns
 - What do people ask fieldworkers for?
 - Ask for anything fieldworkers can't provide?
 - What can/do fieldworkers do in response?
- 5. Budget Allocation
 - a. Adequate?
 - b. How does population Deputy Director allocate to sub-units?
- 6. Performance
 - a. Standards for measuring?
 - b. Rewards for good performance?
 - c. Dismissal or other sanctions for poor performance?

Appendix E

PRINCIPAL PERSONS INTERVIEWED AND VISITED

DACCA

Bangladesh Government, Ministry of Health and Population Control
Mr. Hyder Hussain, Secretary

Population Control and Family Planning Division
Dr. Nargis Akhter, Director of MCH and Family Planning Services
Mr. Abdul Gofran, Assistance Director for General and IEM
Col. L. A. Khan, Director General for Implementation

National Institute for Population Research and Training
Col. Hashmat Ali, Director
Ms. Khan, Chief for Training
Dr. Shafiqur Rahman Khan, Chief for Biomedical Research and
Training and for Bangladesh Fertility Research Program
Dr. S. Waliullah, Chief for Demographic Research

Dr. M. A. Sattar, Former Secretary, Ministry of Health and
Population Control (presently Director General, Integrated
Rural Development Program)

Bangladesh Government, Planning Commission, Population Section
Dr. Atiqur Rahman Khan, Planning Officer, and Staff
Mr. M. A. Mabud, Chief of External Evaluation Unit

U. S. Embassy
Mr. David T. Schneider, Ambassador

USAID/Dacca
Mr. Frank B. Kimball, Mission Director
Mr. Richard L. Podol, Deputy Mission Director
Mr. Charles R. Gurney, Chief, Office of Population, Health,
and Women
Mr. John J. Dumm, Chief Population Advisor
Dr. Carol Carpenter-Yaman, Assistant Population Advisor
Mr. Sk. Ali Noor, Population Program Analyst
Ms. Joan LaRosa, Women's Affairs Advisor
Ms. Louisa B. Gomes, Nutrition Advisor
Mr. Thomas Oliver, Program Officer
Dr. Richmond Allen, Program Economist
Mr. Donald Pressley, Legal Advisor

Bangladesh Association for Voluntary Sterilization
Dr. Azizur Rahman, President
Dr. Salahuddin Ahmed, Director of Training

Bangladesh Family Planning Association

Mr. A. M. A. Kabir, President
Mr. Md. Mozammel Haque, Executive Director
Mr. Mizanur Rahman, Director for Operations

Bangladesh Institute for Development Studies

Dr. Ranjith Senaratne, Technical Advisor, Rural Demographic
Research Project

CARE-Bangladesh

Mr. William M. Gusen

CARE-Medico

Dr. Larry Marum, FWV Training Project Officer

Concerned Women for Family Planning

Ms. Mustari Khan, Project Director

Dacca Medical College

Dr. Feroza Begum, Professor of Obstetrics and Gynecology

Family Planning International Assistance

Mr. Philip Brandt, Regional Director

Ford Foundation

Dr. Anthony Measham, Resident Representative

International Center for Diarrheal Disease Research, Bangladesh

Dr. J. Chakraborty, Supervisor, Matlab Field Station
Dr. Pierre Claquin, Field Coordinator
Dr. Stan D'Souza, Scientific Programme Head, Community Services
Research Working Group
Dr. James Phillips, Demographer and Advisor
Dr. Mokhlesur Rahman, Assistant Scientist
Dr. Yunus, Senior Physician, Matlab Field Station

International Project, Association for Voluntary Sterilization

Mr. Jerry Jezowski, Regional Director
Mr. Rudy Vogel, Deputy Regional Director

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Dr. Subhan Chowdhury, Resident Director

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Mr. Robert Halliday, AID/Washington Pathfinder Project Monitor
Ms. Sallie Craig Huber, Consultant

Population Services International, Social Marketing Project

Mr. Anwar Ali, Project Manager
Mr. William Schellstede, Director
Mr. Shamsuzzaman Khan, Project Officer

Swedish International Development Authority
Mr. Peter Heygardt, Resident Representative

United Nations Fund for Population Assistance
Dr. Richard Moore, Population Officer
Dr. Andrew Fisher (Western Consortium of Schools of Public Health), Consultant
Mr. Jack Nelson (Western Consortium of Schools of Public Health), Consultant
Dr. A. P. Satterthwaite, Maternal and Child Health Advisor
Dr. Rick Yoder (Western Consortium of Schools of Public Health), Consultant

World Bank
Dr. K. A. Pisharoti, Representative

CHITTAGONG DISTRICT

Bangladesh Association for Voluntary Sterilization
Dr. Momtaz Begum, House Surgeon
Mr. Md. Amin-uz-zaman Bhuiyan, Honorary President
Mr. Syed Haider, Administrator
Dr. Md. Ali Maroof, House Surgeon

Bhoalkhali Thana
Ms. Rekha Dutta, Thana Family Planning Officer
Dr. Fazlul Karim, Thana Health Administrator

Chittagong Medical College
Professor Syeda Nurjahan Bhuiyan, Professor Ob-Gyn, Project Director, Model Clinic

Deputy Director for Family Planning
Mr. A. B. H. Bazlur Rahman

Family Welfare Visitor Training Institute
Ms. Shawkat Ara Begum, Faculty Member

Ghashful Women Working for Family Planning
Ms. Harlema Chowdhury, Project Director
Ms. Ali Paran Rahman, Honorary President
Ms. Quamrun Ara Begum, Field Supervisor
Ms. Quamrun Naher Begum, Field Supervisor
Ms. Sharifa Nargis, Office Manager

Model MR Clinic
Dr. Nasima Akhi
Dr. Mandira Biswas

Rangunia Union
Mr. Nurul Islam, Director, Swanirvar Project

Regional Warehouse of National Family Planning Program
Mr. Serajuddin Ahmed, Supply Officer

COMILLA DISTRICT

Assistant Director, Maternal Child Health and Family Planning
Dr. Zahiruddin Ahmed

Atmanivedita Mohila Sangstha (Dedicated Women for Family Planning)
Ms. Shams' Jahan, Executive Director

Chandpur Thana
Mr. Saidu Rahman, Thana Family Planning Officer

Deputy Director for Family Planning
Mr. Ali Ahmed

District Training Team
Mr. Md. Shafiuddin, Training Officer

Family Welfare Visitor Training Institute
Principal

Laksham Thana
Dr. Mijkhjar Ahmed, Thana Health Administrator
Ms. Rowshan Ara Begum, Thana Family Planning Officer
Dr. Jogesh Chandra Roy, Thana Medical Officer

Murad Nagar Thana
Mr. Kabiruddin Ahmed, Thana Family Planning Officer
Dr. Md. Mobarak Hossain, Thana Health Administrator

Shahrasti Thana
Dr. Mohammad Felan, Thana Medical Officer

Shahrasti Thana ZPG Project
Mr. M. A. Mannan, Project Director

DINA PUR DISTRICT

Deputy Director for Family Planning

RANGPUR DISTRICT

Mr. A. K. M. Shamsuddin, Deputy Director for Family Planning
Mr. Khagendra Nath Biswas, ZPG Project Officer

SYLHET DISTRICT

Health, Education, and Economic Development Project (HEED)

Ms. Betty Dunlow, R.N., Kamaiganj Thana

Moulvibazar Thana Health Complex

Mr. Deb Chandra Das, Subdivisional Family Planning Officer

Mr. Ahmed Kabir Haydari, Thana Family Planning Officer

Moulvibazar Pathfinder-funded Community-Based Distribution Project

Rtn. Muhammad Feroz, Assistant Director

Mrs. Kazi Asma Feroz

Mrs. Kalida Rabani

Dr. S. A. Huq

Srimongal Pathfinder-funded Labour Welfare Family Planning Clinic

Dr. Sadhan Chandra Ghosh, Medical Officer

Mr. Md. Zahirul Huq, Project Director

Srimongal Thana Health Complex

Dr. M. A. Matin, Thana Health Administrator

Mr. Sunil Chandra Deb, Thana Family Planning Officer

Dr. Saor Mojumder, Medical Officer for MCH-FP

Dr. Ranjit Kumar Das, Medical Officer

WASHINGTON

AID/Washington

Mr. Michael Jordan, Population Officer, Asia Bureau

Mr. Dallas Voran, Program Officer, Office of Population

Mr. Robert Layton, Program Officer, Office of Population

World Bank, Washington, D.C.

Dr. V. Jagdish

Mr. David Pearce

Mr. H. W. Messenger

Appendix E

OUTLINE AND OBJECTIVES OF USAID/DACCA COMPLETED OPERATIONS RESEARCH PROJECTS, 1978-1980*

1. Evaluating Family Planning Program Effectiveness and Efficiency: A Case Study of Operation Research Project

Principle Investigator and Organization: M.A. Sattar, Associate Professor, Department of Statistics, Rajshahi University.

Dates: May 1978-April 1979.

Objectives: Undertaken to follow up about 300 eligible couples of two villages in Rajshahi district. Objectives were:

- To promote both the diffusion of knowledge about family planning and changes in attitude to family planning;
- To undertake comprehensive motivational activities to increase the rate of practice of modern contraception; and
- To persuade all enlisted eligible couples to adopt more effective, modern techniques of family planning.

2. Sterilization Campaign of 1977: A National Long-Term Follow-up Survey

Principle Investigators and Organization: Atiqur Rahman Khan, Syed Waliullah, M. Nawab Ali, and Douglas H. Huber; Bangladesh Fertility Research Program.

Dates: May 1978-November 1978.

Objectives: A total of 1000 sterilized cases (500 vasectomy and 500 tubectomy) were selected for interview with an equal number of controls. From each selected thana, 25 vasectomy and 25 tubectomy cases were selected for interview. Main objectives were:

- To investigate motivational aspects of the sterilized clients-- i.e., to ascertain factors that prompted adoption of sterilization as a method;

*Excerpted from "A Review of Study Objectives and Reported Findings of Completed Operations Research Projects, 1978-1980" prepared by Mr. Sk. Ali Noor, Population Program Analyst, USAID/Dacca, August 1980.

- To determine the current level of satisfaction with the method;
- To measure the attitude and readiness of the clients to work as motivators for sterilization;
- To identify associated factors that are influencing the life of the sterilized clients, such as sex life, psychological aspect, social atmosphere and other related variables;
- To ascertain the opinion and perception of the community members about the sterilization program; and
- To compare findings of this study with those of other national studies.

3. A Study of the Less Expensive Family Planning Service Delivery System

Principle Investigator and Organization: Dr. Anwarullah Chowdhury, Associate Professor, Department of Sociology, University of Dacca.

Dates: May 1978-May 1979.

Objectives: Study conducted in one ZPG village in DND (Dacca, Narayanganj, Demra) area and a non-ZPG village in an adjoining area. The total number of respondents in the ZPG and non-ZPG areas were 370 and 200, respectively. Main objectives were:

- To find out the ways and means of a less expensive delivery system of family planning services; and
- To find out the most effective as well as the most popular methods of the family planning service.

4. Female Depot Holders (FDH) at Village Level

Principle Investigator and Organization: P & M Consultants Limited, Dacca.

Dates: June 1978-September 1979.

Objectives: One experimental and one control union were selected from Dacca District. A survey was conducted in both the unions before the establishment of FDH system. Sixteen FDHs were recruited in the experimental union. The experiment continued for seven months after which a terminal survey was conducted. The objective of the terminal survey was to make a comparison with the first survey in order to determine changes that may have taken place in the experimental and control unions. The total number of respondents in the experimental and control union were 3,282 and 3,115, respectively. Main objective was to increase the acceptor rate by establishment of FDH.

5. Location Analysis and Evaluation of Service Delivery System for Union Family Welfare Centers (FWC) in Bangladesh

Principle Investigator and Organization: Proggani Consultants Ltd.

Dates: October 1978-August 1979.

Objectives: Conducted in 16 villages in 4 unions of 2 districts. A total of 1,402 households were selected for interview. There were three different sets of questionnaires for three different types of respondents. One set was for all married women (in the household) of age less than forty years. A second set was for information about social institution in the selected villages. The third set was for the staff of the union family welfare centres (FWC). Main objectives were:

--To identify the present status of maternal and child health care and family planning services in the selected rural areas; and

--To evolve optimal location criteria for the setting up of union family welfare centres.

6. Performance of Family Welfare Assistants (FWA)

Principle Investigator and Organization: Abul Hasnat Golam Quddus, Department of Sociology, University of Chittagong.

Dates: October 1978-July 1979.

Objectives: Study was divided into two parts: the evaluation of actual performance of FWAs as fieldworkers, and the evaluation of reliability of official records maintained by them. Study was undertaken in 68 villages in 14 thanas in Chittagong Districts. A total of 845 female respondents and 68 FWAs were interviewed. Main objective was to evaluate the performance of family welfare assistants.

7. Family Planning Workers and Service Delivery in Rural Bangladesh

Principle Investigator and Organization: M. Anisuzzaman, Professor of Political Science, Chittagong University.

Dates: February 1979-October 1979.

Objectives: Study was conducted in six villages in six unions from four thanas in four divisions. Using different questionnaires, about 15 percent of the married couples and a total of 35 FPAs, FWAs, and FWVs were interviewed. Main objectives were:

- To ascertain the socioeconomic background of the fieldworkers;
- To ascertain the level of education and job training of the fieldworkers;
- To assess the orientation of the field staff to family planning as a concept and as a profession;
- To examine how the fieldworkers are perceived by the villagers, particularly by rural married couples in reproductive age;
- To know the extent of services delivered by the fieldworkers in their present work environment;
- To identify specific problems faced by these workers in their present work environment; and
- To indicate the prospects these workers foresee in the near future in matters of service delivery.

Appendix F

GUIDANCE FOR "PREVALENCE PROGRAMMING"

The following "Prevalence Programming Chart" is designed for use by fieldworkers, their supervisors, and program managers at all levels in the service delivery organization as a basic "prevalence programming tool." The same chart can be used at the block, ward, thana, and district levels. It can also be used at subdivision, division, and national headquarters levels.

The Correlation Between Prevalence of Contraceptive Use, Population Growth Rates, and Crude Birth Rates

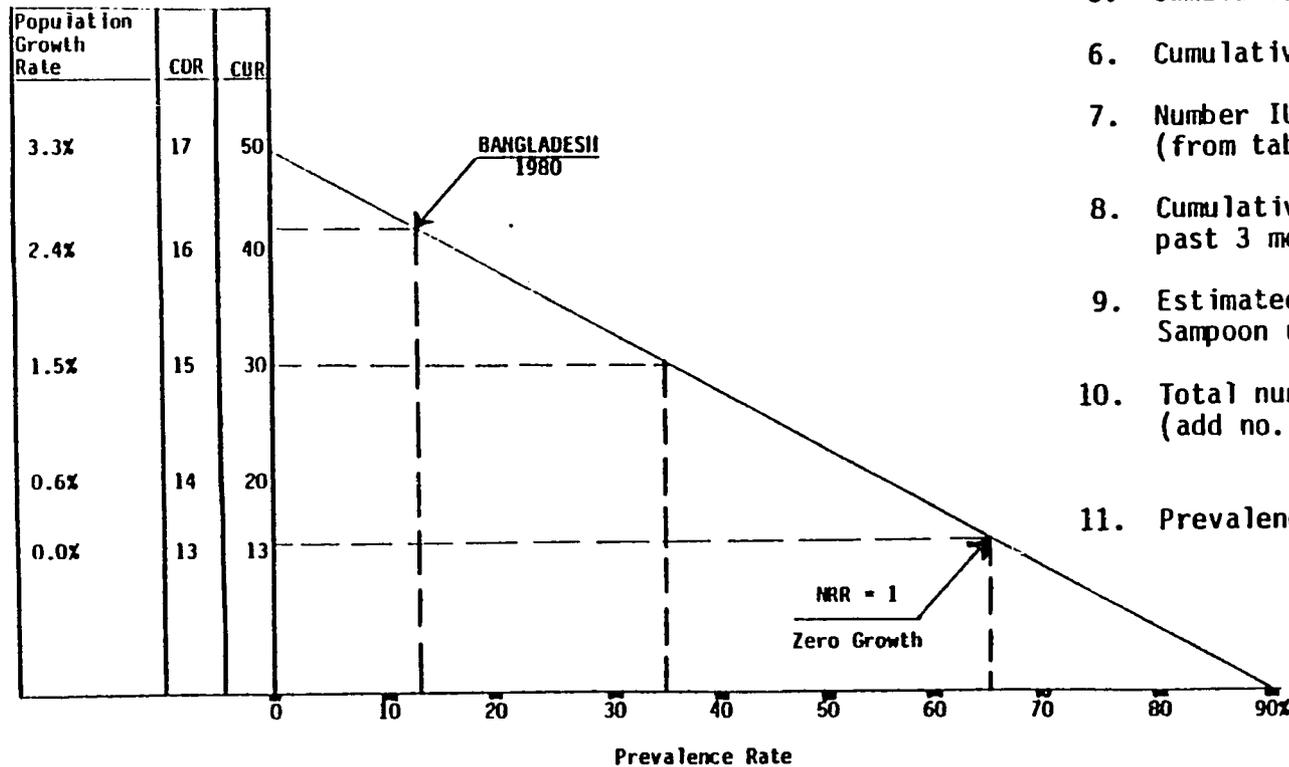
On the part of the chart labeled "Correlation Between Prevalence of Contraceptive Use and Population Growth Rates, Crude Death Rates, and Crude Birth Rates," the scale at the bottom is the "prevalence rate" which means the percentage of eligible couples of reproductive age who at any one point in time are practicing contraception. As you will note, in Bangladesh today, approximately 13 percent of eligibles are using contraception and the crude birth rate is 43 or 44 per 1,000. To reach replacement level fertility or a "net reproduction rate of one" (NRR = 1), it will be necessary for about 65 percent of eligibles to be contraceptive users -- which would result in a crude birth rate of 13 per 1,000. By the time that happens, it is projected that the crude death rate would have dropped from around 17 per 1,000 to 13 per 1,000 and that births would equal deaths.

The chart can be used to measure progress in increasing the percentage of continuing users of contraception and in setting targets and goals for fieldworker achievement, thana achievement, and district achievement. For example, if a ward or thana today is at 13 percent prevalence, a goal of 18 or 20 percent could be set for the next year and progress toward achieving that can be measured at quarterly intervals.

A "prevalence worksheet" is provided below. If this is correctly filled out, the present confusion in the reporting system between "cumulative new acceptors" and "current users" will be straightened out to everyone's benefit. Furthermore, by adopting "prevalence programming," fieldworkers will begin to emphasize the need for increasing continuing users (as opposed to merely recruiting new acceptors) with a resultant payoff in greater fertility reduction. Also, there will be a "natural shift" toward promoting more effective methods as fieldworkers realize that it is easier to "maintain" a continuing user who has been sterilized or has an IUD than one who requires a regular resupply of pills or condoms.

PREVALENCE PROGRAMMING CHART

Correlation Between Prevalence of Contraceptive Use and Population Growth Rates, Crude Death Rates, and Crude Birth Rates



Prevalence of Contraceptive Use Worksheet

1. Present population size = _____
2. Present number eligible couples:
(= population ÷ 5) = _____
3. Average number pills distributed per month = _____
4. Average number pieces condoms distributed per month ÷ 10 = _____
5. Cumulative vasectomies = _____
6. Cumulative ligations = _____
7. Number IUDs and Copper-Ts in use (from table, Appendix F) = _____
8. Cumulative number injections past 3 months = _____
9. Estimated number of foam or Neo-Sampoon users previous month = _____
10. Total number contraceptive users (add no. 3 through no. 9) = _____
11. Prevalence = $\frac{\text{Number users}}{\text{Eligibles}}$ = _____ %

% Eligible Couples Using Contraception

One of the most useful features of prevalence programming is that it allows a reasonably accurate comparison of performance among geographic areas. This should prove particularly helpful to program managers and supervisors at thana and district levels who then will be able to easily and routinely identify both high- and low-performance areas. In the case of low-performance, extra supervision or refresher training can be mobilized; in high-performance areas, supervisors can learn what the key ingredients to program success are so these lessons can be applied elsewhere.

In using prevalence programming, prevalence should be periodically plotted, say at intervals of three or six months, along the sloping line of the above chart. The marks indicating prevalence should be dated so that progress during time intervals can be measured and tracked. These plots can then be adjusted on the basis of prevalence surveys when such survey results are available.

The chart includes assumptions on the crude death rate (CDR) declining from 17 per 1,000 when the crude birth rate (CBR) is 50 per 1,000 to 14 per 1,000 when the CBR is 20. Subtracting the CDR from the CBR gives the population growth rate shown on the left vertical scale.

Prevalence programming deals in a practical way with estimates and projections of contraceptive use and the effect of these on crude birth rates and growth rates. Despite some inherent lack of preciseness, application of the concept provides a more realistic and accurate picture and tracking method for measuring program performance than most management information systems (MIS) used in large-scale family planning programs world-wide today. This is especially true when there is no vital registration system and when newly designed MIS efforts are not yet fully operational.

Furthermore, prevalence programming lends itself to local application without the need to pass performance data from lower to central levels and back again. All the calculations can be simply done with inexpensive electronic hand calculators and without need for sophisticated computers and computer programming.

In situations like Bangladesh where a more sophisticated MIS may not be nationally operational for some time, the application of prevalence programming concepts can fill an important interim need for performance measurement, target-setting, and evaluation.

Prevalence of Contraceptive Use Worksheet, Instructions, and Methodological Note

The explanatory comments below correspond to the numbers on the worksheet half (right side) of the "prevalence programming" chart above.

1. Present population size. Estimate the present population size by using 1974 census data and applying an average annual growth rate of 2.8 percent for each year since. This can be easily and quickly done on a typical electronic hand calculator by first entering the figure, 1.028; then press the "times" or the "X" button, then enter the 1974 population size figure. Lastly, to estimate the mid-1981 population size, for example, press the "equals" or "=" button seven times (for seven years) to produce the population size estimate for 1981. (For 1982, press eight times, and so on for subsequent years.)
2. Present number eligible couples. To determine the estimate of eligible couples of reproductive age, simply divide the present population size by 5. In Bangladesh, given its age structure and early age of marriage it turns out that married (or "eligible") couples of reproductive age (MCRA) represent about 19 or 20 percent of the total population. Using 20 percent or dividing by "5" is easier for fieldworkers. The calculation for married women of reproductive age (MWRA) is identical.
3. Average number of pills distributed per month. This is the number of monthly cycles (MCs) distributed the previous month or, preferably, the average number of cycles distributed per month during the previous three months. Because fieldworkers and clinics often distribute three monthly cycles at a time, taking the average monthly distribution of "off-take" for the previous three months will be more accurate.
4. Average number of condoms distributed per month. Assume a frequency of intercourse of 10 times per month (which could also allow for modest condom wastage) and divide the total number of pieces of condoms distributed the previous month by 10. As with the estimate of monthly pill users, a more accurate estimate would be obtained by taking the average monthly distribution over the previous three months.
5. Cumulative vasectomies. Simply add up all the vasectomy cases in your area of jurisdiction since male sterilization has become available. (Because vasectomies have only been locally available since about 1977, it is not necessary to subtract from the total cumulative figure those few cases where the wife has passed beyond age 45 and can be presumed to be no longer fertile.)
6. Cumulative tubal ligations. As with vasectomies, add all known ligation cases in your area since this method was first made available. Be sure to include ligations done by mobile teams or voluntary organizations on women living in your service area, but only count them once.

7. IUD users. To estimate current IUD (including Copper-T) users, complete the following table:

Time Period	Past 12 months	12-24 Months Ago	24-36 Months Ago	36-48 Months Ago	More than 48 Months Ago	
Number of Insertions						
Estimated Percent Still Using	85%	70%	60%	50%	30%	
Current Users						TOTAL

Multiply the number of insertions during each period or year by the percentage figure for that period to give the number of current users. Total the bottom line of current users and enter on work-sheet.

8. Cumulative number of injections during past three months. Because most injectibles provide three months' protection, add the number of injections given during the past three months and multiply this by 9/10ths or .9. This allows for some drop-outs and will produce a relatively accurate estimate of users.

9. Estimated number of foam or Neo-Sampoon users. Estimate the number of foam or Neo-Sampoon users by counting the number of women who were given foam or Neo-Sampoon the previous month.

10. Total number contraceptive users. For the total number of users, add items No. 3 through No. 9.

11. Prevalence. Prevalence, which means the percentage of eligible couples using contraception at any one point in time is determined by dividing the number of users (No. 10) by the number of eligible couples (No. 2). This gives you the "prevalence rate."

12. As a final step, put a mark along the sloping line directly above the point where your prevalence rate falls on the bottom line. Put today's date by that mark so you will be able to track changes in prevalence over time.