

A SPECIAL REPORT

Improving Family Planning Program Performance through Management Training: The 3Cs Paradigm

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This report describes an action-research in Bangladesh which was designed to answer two questions: Is it possible to attain a high level of fertility control behavior in a population characterized by a high level of socioeconomic backwardness, and can management training help improve the performance of service-delivery systems? The finding of this research is that a carefully designed and executed intervention would result in affirmative answers to both these questions. In the 19 experimental thanas, CPR increased by an average of approximately 10 percentage points within 12 months of training.

Key words: Bangladesh; family planning; management training; 3Cs paradigm

Background

"Improved results are often threatening to others, and the more dramatic the improvement, the greater the threat".

Peter M Senge *Leading Learning Organizations* in
Frances Hesselbein et al., Editors, *Leaders of the Future*,
Drucker Foundation, Future series, 1996, p49.

"Problems will stay solved longer and be solved more effectively if the organization solves its own problems; the consultant has a role in teaching diagnostic and problem-

solving skills, but he should not work on the actual concrete problem himself."

Edgar H Schein in *Process Consultation*,
Addison-Wesley, 1964, p6

Observing a significant relationship between socioeconomic status (especially the status of literacy and women) and fertility, many have tended to conclude that the former is a prerequisite for the control of fertility. Without any other effective intervention, this relationship is likely to prevail. But a determined intervention through a well organized program of birth control, it seems, can weaken or even neutralize this relationship. Bangladesh, one of the poorest countries in the world with very low levels of literacy and status of women, has emerged as an important example of this phenomenon. With a determined programmatic intervention, it has brought down its fertility rate from 6.34 in 1971 to 3.45 in 1995¹, and this rate continues to fall.

The role of programmatic intervention in fertility control could be more firmly established if we could observe the power of this variable under an experimental situation. An

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opportunity to conduct such an experiment emerged in 1996 in Bangladesh. In 1994, USAID, Dhaka had entered into an agreement with The Asia Foundation, Bangladesh to manage a cooperative program under which nearly 30 government thana family planning officials were to be sent to the University of North Carolina's Executive Program in Health and Population for Developing Countries (EPDC) for MPH degree. However, after more than two years of efforts, less than half a dozen thana family planning officers could be prepared to pass the required English-proficiency test for admission. As a result, a large proportion of funds, budgeted for this training, were unspent. To utilize these funds, in 1996, the USAID, The Asia Foundation and the University of North Carolina entered into an agreement to mount a Bangla medium non-degree training for 20 thana family planning officers. In this connection the following details were agreed to:

1. The period of training would be 14 weeks. The formal training would be supplemented by an organized follow-up of 12 months.
2. Although training would cover most of the subjects taught in the MPH degree program, its primary purpose would be to achieve a significant improvement in the performance of the thana family planning programs managed by the trainees.
3. The training would be conducted largely in Bangla, and in Dhaka.
4. The training would be full time.
5. The trainees would be selected from the pool of nearly 40 thana officials originally identified for the MPH degree. Those selected would have at least five years of operating experience in their current positions.
6. The Government of Bangladesh would ensure that the trainees would not be transferred from their thanas until the training and the follow-up were concluded.
7. The training would be designed and conducted by the University of North Carolina, managed locally by The Asia Foundation, and supervised by a committee appointed by the Government of Bangladesh to include representatives of the government, USAID, The Asia Foundation and the University of North Carolina at Chapel Hill.
8. The completion of training certificate would be certified by the University of North Carolina at Chapel Hill through the award of formal certificates.

All these decisions were not made at the outset. Several critical decisions were made much after the initial decision to mount the 14 week management training to be conducted in Bangla at Dhaka for 20 thana family planning officials was taken. For example, the primacy of the goal to improve the performance of the trainees' service program was established during the training design phase. Similarly, the decisions on adding a follow-up and not transferring the trainees were not formalized until after the training had started. It was a bit like sailing the boat while building it. This situation arose because of the multiplicity of stakeholders and significant differences in their interests and concerns.

Curriculum Design: Conceptual and Methodological Issues

It did not take very long to realize that the proposed training could be the opportunity needed for the experiment to study the impact of a designed managerial intervention on the performance of a family planning program. Since the proposed training was not for a degree, there was more flexibility in designing it. Also, the fact that the trainees would bring similar background, hold the same rank and responsibilities, and were employed by the same government, made the task of designing this experiment a lot simpler. With this realization, improving the program performance became the primary goal in designing the training. This shift in emphasis was readily accepted by The Asia Foundation, USAID and the government.

The primacy of interest in achieving significant improvement in the service program managed by the trainees, raised several critical conceptual and methodological questions. A lot of these questions were interactive in nature; answer to one was linked with answers to others. In sorting out this tangle, we started with the basic conceptual issue: Can management training improve the performance of a system? To answer this question, we had to answer two related questions: What can training change, and what change is needed to improve program performance?

What can training change?

Conceptually, training can accomplish four kinds/levels of changes: change in knowledge and understanding, change in knowhow, change in behavior and change in habits. What change is actually achieved is dependent on the goal,

design and delivery of the training. In this connection, it is also important to underline the importance of the time required for training for the achievement of these four goals. Generally speaking, improving knowledge and understanding needs the least time; knowhow development, medium amount of time; and behaviour change and habit formation the most time. In fact, the additional time needed for moving from a lower level to the next higher level of training may be governed by geometric progression. For example, if imparting of information needs 2 hours, the achievement of a reasonable degree of understanding of this information would need 4(2²) hours; development of the needed proficiency in the use of this information, 8 (2³) hours; development of behavior for using this knowledge and knowhow, 16 (2⁴) hours; and conversion of this behaviour into a habit, 32 (2⁵) hours.

Surfacing of this calculation was particularly important in the light of the fact that there was significant concern in many quarters (Government of Bangladesh, USAID and thana officials) over the proposed long length of the training. The 14 weeks duration was negotiated when the goal of the training was improving knowledge and knowhow: management theories and selected methods and techniques. The change in the goal of the training (to put the new learning to use and thus achieve significant improvement in their programs) required a longer period of training. However, the inflexibility of the 14 weeks period required that in designing the training, suitable ways and means be found to overcome the problems caused by this constraint.

The obvious solution was to select only a few behaviors and to concentrate on changing them. But the difficult part was finding such a set of behaviors that were central to system performance. (See the following section for the resolution of this issue.) Another way was to lengthen the training period indirectly by adding a formal follow-up period. Since follow-up did not require the trainees to be away from their jobs, and also did not require expenses related to formal training, this option received a more positive reception. However, the proposal for a 3-year follow-up period was rejected in favor of one year. A 3-year follow-up proposal was rooted in the theory that a new behavior needs to be repeated several times for it to become a habit. A 3 year follow-up would have allowed implementation of three annual work-plans (more on this in a later section) under formal supervision.

Finding the Key Variable: Needle in the Haystack

As noted earlier, our need for time-economy required us to achieve a sharp focus by concentrating on the manipulation of as few variables as possible. The problem was the selection of such variables. Since this selection was central to the success of the whole experiment, any decision on this needed to be based on a sound theory on system performance. For help in this regard, we opted to use the following model, popularly known as Jain System Diagnosis Model²:

Sp is a f (D,E,I_a, I_b and P), wherein

D,E,I_a and I_b are f (P), wherein

P is f (p)

Sp is **System Performance**

D is Quality of the Statement of System's **Desired Output**

E is Favorability of the System **Environment**

I_a is Adequacy and Quality of System **Inputs**

I_b is Adequacy and Quality of **Information** about the System

P is Quality of System **Process**

p is System **Processor/s**

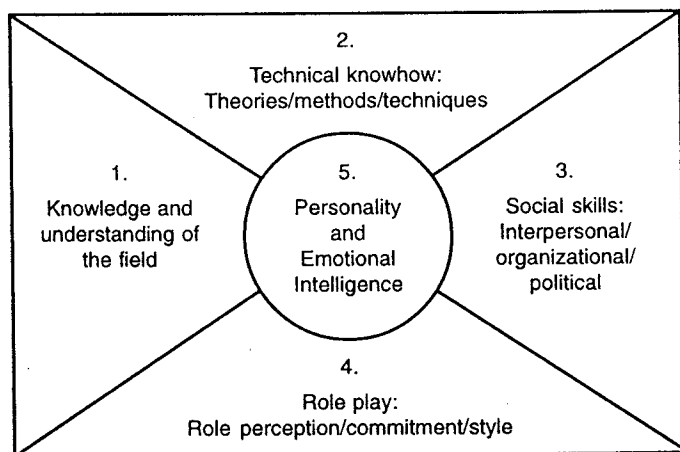
According to this model, system processor is ultimately responsible for the performance of the system. Therefore, focusing on the processor, viz. thana family planning officers (TFPOs), for achieving significant improvement in their program performance, was theoretically sound. In other words, thana family planning officers were largely responsible for the current performance level of their programs. Further, significant improvement in the performance of their programs could be achieved if these officials could be taught to carry out their responsibility more effectively.

While this generated much needed theoretical assurance that management training given to thana family planning officers could produce improvement in the performance of their programs, it did not answer the practical question about what should be taught to make them more effective in the discharge of their responsibilities. In this analysis, the key word was 'responsibility', which according to the Jain Diagnosis model, is manipulation of all other factors to achieve system's goals. Logically, the training should be focused on the enhancement of the capability for this manipulation.

The next conceptual issue was regarding the definition of this capability. This question was answered once again with the help of the Jain Paradigm on Making of a Manager³. According to this paradigm (Figure 1), a family planning manager, to be effective, would need five sets of capabilities:

1. A systematic knowledge of the family planning field, including understanding of the population dynamics; factors influencing fertility, population growth and acceptance of birth control; history of the family planning programs in various parts of the world, their successes and failures and the factors responsible; current population policies and their future direction, etc;
2. Proficiency in statistical/epidemiological/demographic/management methods and techniques for describing, assessing, diagnosing, correcting and monitoring program performance;
3. Interpersonal/organizational/political skills;
4. A healthy role perception, significant role commitment and sound role style.
5. Mature personality and high emotional intelligence.

Figure 1 *Making of a Manager*



Using this paradigm, we came to the following conclusions:

- Since the trainees were to bring at least five years of experience as thana family planning officers (in fact, they brought much longer experience), it was assumed that they would bring significant knowledge of the family planning field. However, our previous

experience with other such mid-career trainees had shown that their knowledge pool was likely to contain several myths which must be unlearned during the training.

- Almost all our respondents (senior government officials, donors, training institutions, thana officials) who were canvassed informally, told us that the methodological competence of the trainees was inadequate, and, therefore, it needed focal attention.
- Since the constraints on time and resources did not allow a systematic assessment of the potential trainees' interpersonal/organizational/political skills and of their personality and emotional intelligence, it was decided to treat these as constant. (Even if we could assess these, limitations of the available pedagogies would not have allowed us to do much about these.)
- Our interactions with family planning program managers in Bangladesh in general, and thana family planning officers in particular, had indicated that the greatest potential for improvement was in the areas of role perception and role commitment.

This analysis indicated that the training should concentrate on the following:

1. Identification and correction of unsound/mistaken knowledge and beliefs about population dynamics and family planning behavior.
2. Improvement in the methodological competence.
3. Improvement in the role perception and role commitment.

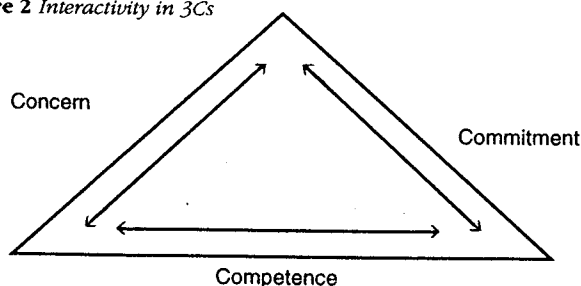
This narrowing of focus was comforting, but not comforting enough; there was still too much on the plate. Achieving improvement in methodological competence by itself could take all 14 weeks available for training. Further, this improvement in the knowhow may have little payoff without simultaneous improvement in the trainees' role perception and role commitment. At the same time, any direct examination and discussion of how the trainees perceived their role and how well they carried it out, was fraught with danger of high emotionality, especially because the family planning officers in Bangladesh suffered from a high degree of status insecurity. (This characteristic of these officials is described in greater detail in a later section.) Even if we could find a pedagogy for addressing this issue

indirectly, finding adequate time for dealing with this issue was still very problematic.

We needed a stone that could kill several birds at the same time. An examination of factors that influence role perception and commitment provided us with such a stone. After reviewing the extensive literature on this subject⁴, we concluded that among the many factors that contribute to the role behavior of a person, a very significant part is played by three factors: person's concern for the issue to which the role is tied, his/her commitment to address this issue, and his/her competence for translating the felt concern and commitment into effective actions. A high level of concern for the issue tends to bring a high degree of seriousness of purpose in the role perception. Similarly, a high degree of commitment to deal with the issue tends to produce a high degree of role commitment; and a high degree of competence in handling the issue tends to create significant confidence regarding the role competency. This almost one-to-one relationship between role-behavior and issue-related behavior, indicated that by shifting our focus from the role to the issue, we could avoid the minefield of emotionality, and still achieve our aim.

Concern, Commitment and Competence (3Cs, in short) are interactive in their relationship with each other. A high level of concern tends to breed commitment, and a high level of commitment tends to motivate the person to acquire the needed competence. The reverse is also true. A perception of a high level of competence in oneself tends to encourage the person to come forward to take problems in his hands and to act on them. Such interactivity may not be found in all cases and in all situations, because this interactivity is not automatic. For it to take place, a catalytic event is necessary. Sometimes such events happen on their own, but they can also be generated. The interactivity in the 3Cs could be visualized as follows:

Figure 2 *Interactivity in 3Cs*



This observation on the interactivity of 3Cs made our task a lot easier. We could manipulate all 3Cs by manipulating any one of them, if we could at the same time cause the needed catalytic event.

Since in Bangladesh culture, it is considered highly desirable to increase one's knowhow, we decided to focus the curriculum on the improvement of competence. This selection was also guided by the fact that we had developed and tested an effective pedagogy – Carolina Simulation Method (CASIM) which had proven very effective in improving the knowhow of trainees from the developing countries for achieving this goal. This data-driven and learning-by-doing pedagogy was developed over a 10-year period with a grant from The Ford Foundation, to deal with several critical issues faced in training professionals from non-western cultures: a high degree of passivity in learning behavior (onus is placed on the teacher to teach, instead of on the students to learn); primacy given to deductive theorizing and intellectualizing as against examination of empirical evidence; a pervasive belief that various methods of analysis and decision making were too cumbersome, not feasible in their countries, and probably not useful; and a tendency to learn by memorizing the information and not by applying and analysing it⁵. Although not aimed at in the original design of its development, the CASIM also allowed the surfacing, examination and correction of information and beliefs held by the trainees, as well as the surfacing and manipulation of their concern and commitment.

The next major issue was regarding the selection of methods and techniques to be taught. In this, we were guided by the ancient Doctrine of Parsimony propounded by philosophers and logicians for many centuries, as well as by the principle of Vital Few popularized by the Honshin Kanri⁶ approach to management. The former avers that if a goal can be achieved with less, it should be achieved with less; the latter emphasizes that since doing everything that needs to be done to achieve a goal is usually not feasible, one should select those few items that are feasible and would lead to significant progress toward the goal. Guided by this wisdom, it was decided to keep the number of topics to be covered to a bare minimum by careful selection based on two criteria: what is taught is used by the trainees; and the selected items should give a big boost to the trainees' own perception of the superiority of their management

knowhow and this perception should be shared by their peers and superiors.

No training, however selective in contents and focused in delivery, can guarantee that the training-generated change would sustain on the job. In fact, there is ample empirical evidence that the new learning tends to experience steady and significant wash-off starting soon after the trainees' return to their jobs. This wash-off phenomenon takes an acute form when the trainees experience significant operational difficulty in using their new learning and/or the organizational environment is hostile toward the use of the new learning. This concern led to three important decisions, none of which featured in the initial agreement for mounting the training. These were:

1. Since sustainability of learning requires its continual use over a period of time, each trainee would prepare and implement a detailed plan to achieve significant improvement in his/her program within a specific period. Further, the trainees would apply all the methods and techniques taught to them in the preparation and implementation of their plans. To give muscle to this decision, these plans would be formally approved by the Government of Bangladesh as the official plans of the participating thanas.

2. To ensure that the trainees do not give up their plans when faced with operational and/or systemic difficulties, a supervised follow-up program was added.
3. To bring prima facie legitimacy and to communicate seriousness of purpose, it was decided that the improvement in the thana programs, reported by the trainees, would be formally verified by an independent external organization through detailed field study.

Defining Performance

Another important issue was the definition of 'program performance'. This was important because several different indicators [e.g. Population Growth Rate (PGR), Total Fertility Rate (TFR), Contraceptive Acceptance Rate (CAR), Contraceptive Prevalance Rate (CPR), spacing period, and side effects and complication rates] have been used for this purpose. But, essentially, the indicators of performance are to be selected in the light of the avowed/attributed goals of the program.

The Bangladesh family planning program, from its inception, has given primacy to population control. To make this point, it had originally named its ministry for managing family planning services, Ministry of Population Control. Although the name of the ministry has been changed to Ministry of

Table 1 Family Planning Program Performance Indicators: Assessment of Suitability for the Study

Sl. No.	Indicator	Pros	Cons
1.	Population Growth Rate (PGR)	Provides a very direct and effective assessment of population control efforts.	$PGR=BR-DR+MR$. Family Planning Officers had little control on DR and MR, and were not responsible for generating data on these.
2.	Total Fertility Rate (TFR)	Since most of the population growth problems are believed to be caused by TFR, it should be a good indicator.	TFR related info is generated by census and surveys. Thana based up-to-date data are not available. In the absence of these data, thana officials will not be able to mount any program based on TFR.
3.	Contraceptive Prevalance Rate (CPR)	Since contraceptive use influences fertility, it is a fairly good indicator. Allows calculation of averted births.	Service statistics which record distribution, and not use of contraceptives, do not allow accurate assessment of CPR.
4.	Contraceptive Acceptance Rate (CAR)	<ul style="list-style-type: none"> • Service statistics readily available. • Used by the Government. 	<ul style="list-style-type: none"> • Acceptance is a misnomer; CAR is a record of distribution. • In a target-driven program, service statistics can be falsified. As a result, CAR and PGR could rise simultaneously. • It is particularly problematic when contraceptive-mix has high proportion of non-clinical methods, as is the case in Bangladesh.
5.	Side effects and complications rate	A good indicator of quality of services.	Not an indicator of population control.
6.	Spacing period	A good indicator of control over personal fertility.	Does not measure population control.

Health and Family Welfare, control of population growth remains its main mission. In defining family planning program performance, we not only needed clarity regarding the goal of the national program, but also an indicator which was both conceptually sound and usable. This required an assessment of the pros and cons of each of the popular indicators in the context of our study. This analysis is summarized in Table 1. Based on this analysis, we opted for CPR for the following reasons:

1. Data feasibility considerations ruled out PGR and TFR.
2. Rates of side effects/complications as well as spacing period were rejected because they did not measure PGR or TFR.
3. CAR was eliminated because of its poor reliability.

In selecting CPR, it was realized that the trainees would face difficulty in estimating it. However, this difficulty would be overcome by the proposed verification study which would have to verify both the baseline and endline to assess progress. Further, it was thought that in the face of the proposed verification study, the use of CPR might encourage the trainees to promote clinical methods (CAR for these methods tends to equal CPR.) to achieve greater accuracy in their reports; and, in turn, clinical methods would have higher impact on the population growth rate.

Setting Performance Improvement Goal

This was an issue which required balancing of two powerful considerations, viz. desirability and feasibility. In this context, we decided to give primacy to feasibility. In this connection, the following were considered:

1. In Bangladesh, CAR, after rising at an average annual rate of 2 percentage points, had started to slow down. The average annual growth rate in CAR during 1994-96 was estimated by the government at 1.3 percentage points.
2. Available field studies indicated a high rate of discontinuation as well as a high rate of unmet demand for contraception.
3. CAR varied greatly from thana to thana; high performing thanas reported CAR of more than 60 percent; and low performing thanas less than 30 percent.

Using these data, two sets of analysis were done, one based on trend-extrapolation (with and without intervention) and the second based on performance improvement potential (PIP) Assessment⁷. The trend-extrapolation analysis with intervention indicated that CAR for the country as a whole could be improved at the rate of at least 3 percentage points per year for the next five years. But, the PIP analysis produced a much rosier picture with performance improvement potential of upto 20 percentage points. However, unlike the trend extrapolation, the PIP analysis does not specify the time needed for realizing the indicated potential.

Guided by the theory, $G=PxA$ (where G is goal, P is personality and A is analysis. Values of P and A vary from case to case) and the dictum that analysis should assist, not dictate decisions, we set a goal of an average of 4 percentage points improvement in the CPR of participating thanas in 12 months immediately after the completion of the 14 weeks training. Further, increase in CPR had to be coupled with very significant improvement in the continuation rate. To ensure that these improvements could be related to the training, the following three controls were added to these goals:

1. No decrease in the ratio of clinical methods. (This was done to address the belief that promotion of non-clinical methods was significantly easier than clinical methods. Therefore, the trainees might take recourse to non-clinical methods to improve their CPR).
2. No decrease in maternal and child health services. [Thana family planning officer carried two major responsibilities: family planning and maternal/child health (MCH) services. This control was intended to prevent improvement in family planning at the cost of MCH.]
3. No new or additional resources (money, manpower, supplies, etc.) would be available to the participating thanas.

Other Considerations

In designing a curriculum, sorting out of many theoretical considerations is essential, but not sufficient. Account must also be taken of the trainees' characteristics, the strengths and weaknesses of the faculty, pros and cons of different pedagogies, nature of training site and facilities and the management of the training. Fortunately, we enjoyed, more

or less, a free hand in most of these matters, except in the selection of the trainees.

A. Trainees' characteristics

As noted earlier, the trainees were to be selected by The Asia Foundation in consultation with the government from a pool of nearly 40 thana officers selected originally for MPH degree training.

The selection process turned out to be more cumbersome and time-consuming than originally visualized. It was mainly because of the involvement of several levels of governmental hierarchy in decision making, and a tendency of each official to second-guess the others. Once the initial selection was determined by the Directorate of Family Planning, The Asia Foundation interviewed each candidate utilizing a common interview tool. In these interviews, the goal and purpose of the training was explained, and the candidates' interest and motivation assessed. Finally, 20 officers were selected: 19 from thanas and one from the Directorate of Family Planning. However, several thana officers selected expressed inability to join for a variety of reasons, including the long duration of the training and their belief that management training tends to be unproductive.

After the replacements were found, the participants' profile emerged as follows:

- 17 Thana Family Planning Officers (TFPOs), 2 Thana MCH Officers (MO-MCH) and 1 Research Officer from the Directorate;
- 5 women and 15 men;
- 2 doctors and 18 non-doctors;
- age: 32-37 years;
- years of experience in their present position: 6-8 years;
- estimated current average CPR of the 19 thanas: 50.8 percent; range: 26.7 percent to 67.6 percent

After interviewing some of these and other TFPOs, as well as other key informants about the management of family planning program in Bangladesh, we came to the following conclusions:

1. Despite Bangladesh's success in reducing its fertility in the face of abject poverty, pervasive illiteracy and

low status of women, there was a deep-rooted belief that without rapid and significant improvement in the socioeconomic conditions of people, fertility could not be brought down.

Further, it was believed that lacking effective authority to hold their subordinates accountable and to obtain needed inputs, the thana officers could not do very much to improve the performance of their programs.

2. The TFPOs were educated mostly in social sciences or humanities; their formal training in population dynamics and/or management tended to be of short duration, fractured and largely didactic and/or procedural in nature. Neither they, nor their peers and superiors perceived them as having significant management knowhow. But, their political skills (exhibited through their trade union actions and similar other behaviors) were well recognised.
3. Although gazetted/tenured first class officers of the Government of Bangladesh, and having an effective trade union of their own, TFPOs tended to be highly prone to status anxiety, especially in relation to Thana Health and Family Planning Officers (who were physicians belonging to the Directorate of Health, while the TFPOs belonged to the Directorate of Family Planning) and often in relation to much younger Thana MOs-MCH (physicians who also belonged to the Directorate of Family Planning).
4. Those who had had experience in having the TFPOs as trainees, described them as intelligent and politically savvy, but generally passive, apathetic, undisciplined and/or hostile in the classroom.

These findings confirmed that the training should give due attention to facilitating (1) targeted unlearning, (2) development of increased self-confidence and enhanced self-image as well-trained managers, and (3) achievement of the trainees' full engagement with the training process through a series of interactive actions: getting their attention by raising their curiosity, making them believe very early that the training would be very useful to them (It is our experience that the trainees tend to be apathetic and/or undisciplined when they perceive that the training is not going to do much good to them.), and using a pedagogy which required their full, regular and continual participation.

B. Faculty Characteristics

Given the goals of the training and the characteristics of the trainees, a very special kind of faculty team was needed: high status (to command respect), charismatic (to influence and to hold attention), skilled teachers, especially skilled in teaching mid-career professionals through adult learning/teaching techniques or a learning-by-doing pedagogy; widely recognized for their expertise; knowledgeable about Bangladesh and its family planning program; optimistic about Bangladesh in general and its family planning program in particular (negativism and skepticism are highly infectious diseases); and proficient in Bangla and English.

For faculty to hold one of these virtues is rare; a combination of multiple virtues is even rarer. Fortunately, our determined search with the help of our worldwide network, produced the desired faculty team of nine professionals: 4 from Bangladesh, 4 from India and 1 from the U.S. Not all of them met all our requirements, but arrangements could be made to compensate for the gaps: (1) a several hundred pages long and well indexed document was prepared to brief the faculty about Bangladesh and its family planning program; (2) provision was made for simultaneous translation in Bangla, as well as for personal tutorials; and, (3) provision was made for team-teaching so that a known deficiency of one faculty would be made up by another.

C. Pedagogy

As noted earlier, the Carolina Simulation Method (CASIM) was selected as the primary pedagogy for teaching performance diagnosis, strategy development, implementation planning and operational management. For other topics, case method, incident method, gaming, problem-solving exercises, psycho/sociometric tests, videos and films and various types of simulations were used.

D. Training Site and Facilities

Location, nature and quality of a training site tend to generate a powerful impression about the importance given to the training as well as to the trainees. This, in turn, influences the morale and motivation of both the students and the faculty. A careful selection of a suitable training site is particularly important when the training demands a new set of behaviors from the trainees, the training period is long and the training is intensive.

We set the following criteria for the selection of the training site: (1) It should be located in a relatively quiet, safe and high prestige area, but should be easily accessible by public transport; (2) It should be available 24 hours a day and 7 days a week throughout the training period, to allow full flexibility in the scheduling of training activities; (3) It should house no other program during our training (This was considered necessary to be able to create our own work-culture.), and (4) it should be spacious (one large classroom, 3-4 breakout rooms, a lounge, a dining room, several guest rooms for faculty and emergency housing for trainees, and several toilets), well lighted, and well furnished; and should have air conditioning, a large standby generator, a variety of audio-visual and communication facilities, a well equipped business office, capability to furnish drinks, snacks and meals, and adequate staff to manage the facilities.

Once again, finding such a facility within the constraints of the budget was not easy. But eventually a training center operated by an NGO, and which met most of our specifications, was found and retained.

E. Management of the Training

Sound and efficient management of the training is essential for its effective delivery. Management function for this training included: regular liaison with the government, USAID and the University of North Carolina, selection of trainees, orientation of the trainees, selection of the training site and ensuring its smooth operation, making satisfactory living and boarding arrangements for the trainees, duplicating and distributing all teaching materials in a timely fashion, organizing a variety of customary ceremonial functions, making arrangements for the housing and local transport for the faculty, supplying needed stationery, calculators, maps, etc., to the trainees and faculty, and similar other activities.

The Asia Foundation took this responsibility. Recognizing the critical importance of this function, Kirsten Lundeen, Director, Health and Population of the Foundation herself carried this responsibility on a more or less full time basis. Her direct involvement produced another important benefit: in the eyes of the trainees it became one more symbol of high importance given to this training.

F. Orientation

Orientation sets the tone of training. How well it is planned and conducted influences the perceptions regarding the importance and the quality of the training which will follow. Therefore, a great deal of care was taken in organizing it.

The orientation was conducted by The Asia Foundation in its facilities. Since the CASIM required that each trainee do all his/her exercises by using data from his/her own thana, it was necessary that all trainees bring needed data with them when they come for training. These data were also needed for the preparation of their annual action plans. To provide ample time to the trainees to obtain and organize these data, it was decided to hold the orientation several weeks in advance of the training, so that this requirement could be properly explained.

The trainees were asked to bring the following data for their respective thanas:

1. CAR/CPR for the last three years for the thana, as well as its unions and units. (For administrative purposes, a thana is divided into unions, and a union into units).
2. Staff positions approved and currently filled by the thana, unions and units for the previous three years.
3. Method mix by thana, unions and units for the previous year.
4. ANC, PNC and immunization rates for the previous year.
5. Socioeconomic characteristics of the thana: family size, literacy, occupations, income, health and education facilities, transport and communication facilities, etc.

Despite this advanced briefing, not all trainees were able to bring all of these data with them. Special arrangements were made during the training for securing the missing data. Those who joined the training as replacements at the last moment and/or had missed the orientation, had most difficulty in this regard.

The orientation gave very special emphasis to underlining that this training was very different from any other training they had previously attended or knew about. In this connection, the following features of the training were pointed out: focus on improving the performance of their

family planning programs, preparation of an action plan, one year follow-up, data verification studies, awards for superior performance, significant involvement/interest of the government at the highest level as well as of important donors in the training, teaching and certification by the University of North Carolina, etc. To bring home the message that a high degree of seriousness of purpose was expected, each trainee was required to sign an agreement to complete the training successfully and to abide by all its policies and rules about attendance, punctuality, in-class conduct, grading, tests and examination, etc. Each trainee was also given a written statement on these policies and rules.

They were told about the daily schedule (9:00 A.M. to 5:00 P.M., five days a week. This time could be extended by an instructor in consultation with the trainees.), policy on holidays (no holiday, except the weekend and gazetted national holidays), per diem (Trainees were to make their own living, boarding and transportation arrangements), and other facilities including supplies, communication facilities, payment schedule and overall management modus operandi.

As a result of discussion with the trainees, several procedural changes, especially regarding the payment of per diem and flow of supplies, were made.

Two Strategic Issues

To achieve the aim of the training, it was essential that the training was perceived as important not only by the trainees but also by the government and donors; and that the trainees develop a potent rationale for exerting themselves to achieve the expected improvement in their thana CPR.

A. Projecting High Importance of the Training

In the preceding sections, several actions intended to project the high importance of the training are noted. These actions were neither random nor opportunistic. Instead, they were part and parcel of a thoughtout strategy, viz. importance of a program equals the importance of its goal, the prestige of the key actors involved, and the quality of the processing.

Guided by this strategy, it was decided that the goal regarding the improvement in the thanas' CPR should be high enough to attract the attention of all key stakeholders. As noted earlier, based on our own analysis of Bangladesh data, we had concluded that an average annual increase of

4 percentage points in the CPR was very feasible. Therefore, we set this as our goal for the training, and its announcement produced the needed attention and interest. (The Director-General, Family Planning, observed that even a 2 percentage points improvement would be a high achievement in the light of the fact that the rate of increase in CAR in Bangladesh was declining and was no higher than 1.3 percentage points. A 2 percentage points increase would reverse this trend.)

Further, as noted earlier, professional prestige and personal commitment were used as critical criteria in the selection of faculty as well as administrators. Professor Sagar Jain, (a senior professor at the University of North Carolina who has had nearly 25 years of continual association with the Bangladesh family planning program and who had trained many Bangladeshi professionals, including three Secretaries, one Director-General of Family Planning and one Director-General of its prime national institution for training and research in family planning, NIPORT) took the leadership role as the Director of the training. In this capacity, he designed the training, selected the faculty, supervised the training and taught nearly one-third of the curriculum.

Professor Somnath Chattopadhyay, a renowned professional and a master teacher in OD and HRD, originally from Bangladesh, was recruited to teach a 2-week unit to help the trainees gain an insight into their own behavior and motivation.

Dr Abu J Faisel, Bangladesh Representative of AVSC International, who was heading a major project to improve the quality of family planning services in Bangladesh, taught the unit on Quality Assessment and Improvement.

All others were similarly well placed: Dr Yasmin Ahmed headed the Marie Stopes, Bangladesh and was well known for her conceptual and operational expertise in Reproductive Health. Professors Barun Kanjilal and Prasanta Pathak were reputed members of the faculty of the well known Indian Institute of Health Management Research. Dr Salina Ahmed and Dr Rana Sinha were well established professionals in their field, and had received gold medals from the University of North Carolina for academic excellence and leadership. Dr Firoz Kamal, a very productive researcher in BRAC, the

largest and a high prestige NGO in Bangladesh, was also a graduate of the EPDC program.

The CVs of all the faculty were given to all participants as well as to all major stakeholders.

Probably, the most important factor in this regard was the frontal association of the University of North Carolina under whose flag the training was carried out, and which was the final authority to certify successful completion of the training by each trainee and which awarded the certificates.

The high quality of the training process was ensured through various measures including a detailed orientation several weeks before the start of the training; conducting the training in a high quality facility; superior day-to-day management; high emphasis on punctuality, 100 percent attendance, and a system of discipline based on the Hot-Stove Rule; approval of all syllabi and lesson plans in advance; evaluation of each unit of training immediately after its completion, by the trainees as well as by the Director of the training program; and the use of state-of-the-art pedagogies. An important element (and not very popular in some quarters) was a decision to use only full time faculty and to discourage the use of occasional lecturers. This was done to maintain the integrity of the training and to protect the learning-culture developed for it. However, high officials of the government and donor organizations were invited and otherwise encouraged to visit the program, sit through class sessions, and to interact with the trainees during the breaks and before and after the class sessions. Further, all requests for information about the training were readily honored.

B. Generating Motivation

It was noted earlier that our pre-training analysis had found that the trainees were prone to a feeling of helplessness and tended to suffer from a relatively insecure professional self-image. These findings were confirmed by the battery of psycho/sociometric tests administered to the trainees during the training to help them gain insights into their attitude and behavior.

Motivation of a person is influenced by the potency of the risk/reward system bearing on the person. The risk/reward system for the thana officers is largely in the hands of the

government, and it is hierarchial and authority-driven in nature. The training program had no way to establish a link with this system without a huge investment of time and effort in negotiating the complex bureaucratic channels. Even if such a link could be established, the potency of this system was uncertain, because the politically skilled thana officers could neutralize it to a large extent. Therefore, we needed another mechanism to energize this relatively low-morale group of trainees.

We took recourse to the Hawthorne Effect: workers invest energy according to their perception of the importance of their work in the eyes of powerful people. Accordingly, a number of steps were taken to generate such a perception. Several of these have been already described in the preceding sections. But the most important step was to have the Secretary (Health and Population), Director General (Family Planning), senior officials of USAID, The World Bank and other donor organizations visit with the trainees and directly tell them about the high degree of importance attached by them to this training.

Two other equally important steps were: (1) instituting a formal follow-up to be managed by a committee of senior officials of the government, representatives of USAID and the University of North Carolina, with administrative backup by the AVSC-Bangladesh, (a cooperative agency of USAID) and the University of North Carolina; and (2) instituting the requirement for the verification of both the baseline and endline reported by the trainees by independent external experts.

Lastly, two sets of awards were instituted on behalf of the University of North Carolina: Certificates of Recognition to three trainees with the highest grades in the 14-weeks training, and gold/silver/ bronze medals to three thanas for achieving the highest level of improvement in their CPR.

Curriculum and Teaching

The decision on the contents of the curriculum was influenced by the original mandate that the training be a mini-version of the MPH degree program, and the later interest in achieving significant improvement in the thana CPR. These two interests were not necessarily compatible but were accommodated by giving primacy to the first goal in the selection of content areas, and to the second goal in

the teaching of these contents through the power of pedagogy.

The training curriculum was as follows:

SL.No.	Unit Title	Duration	Faculty
1.	Reproductive Health and Community Needs Assessment	1 week	Dr Yasmin Ahmed
2.	Effective Use of Data and Information	2 weeks	Prof P Pathak
3.	Essentials of Economics and Finance	1 week	Prof B Kanjilal
4.	Improving Quality of Services	1 week	Dr A J Faisel
5.	Improving Human Resource Management	2 weeks	Prof Somnath Chattopadhyay
6.	Improving Personal Managerial Behavior	2 weeks	Dr Rana Sinha
7.	Diagnosing Program Performance	1 week	Prof Sagar Jain Dr Selina Ahmed
8.	Developing Strategy & Improving Operations Management	2 weeks	Prof Sagar Jain Dr Firoz Kamal
9.	Program Improvement Project	2 weeks	Prof Sagar Jain Dr Firoz Kamal

Only one unit of the curriculum was taught at a time. Although classes were scheduled 9:00 A.M. to 5:00 P.M. five days a week, the class sessions often continued upto 7:30 P.M. so that the trainees could complete their exercises. As noted earlier, punctuality and attendance of all class sessions were required. Absence from more than 10 percent of class sessions for any unit, was a ground for automatic termination from the training; and tardiness had an adverse effect on the grades. No trainee missed any class-session, and two of them insisted on attending the classes even when they were down with hepatitis. Initially, there was some problem of tardiness due to unreliability of the public transport used by the trainees, but within a couple of days, the problem of tardiness disappeared completely. As the training progressed, the trainees became increasingly proactive in extending the class sessions beyond 5:00 P.M. and having extra classes on the weekends. They insisted on holding of classes even on the Bangladesh major national holiday, 25th anniversary of the Liberation Day. It was not due to any lack of patriotism, but an urge to express their patriotism by devoting themselves to learning needed for the progress of the nation.

In teaching, Units 1 to 4 were considered supportive learning units and Units 5-9 primary learning units. The former group of units was taught more or less in the same fashion as in the MPH program, with primary emphasis on development

of knowledge and knowhow. A variety of pedagogies were used, but the most common method of teaching was giving a brief explanatory lecture on the topic being taught and following it with one or more in-class exercises to help develop use-proficiency and proper application.

Units 5 to 9 were considered to be directly related to our aim of achieving 4 percentage points improvement in the CPR in the trainees' thanas by enhancing their 3Cs (Concern, Commitment and Competence). As the titles indicate, the first two of these units (Improving Human Resource Management and Improving Personal Managerial Behavior) focused on helping the trainees gain an insight into their personality, values, priorities and aspirations; their style of dealing with subordinates, peers and superiors, and resultant role effectiveness; and their role commitment and competence. They were also taught several methods of improving their role effectiveness. A variety of pedagogies were used including case and incident methods, gaming, tests, video and various types of simulations. This preparation was considered necessary for the trainees to become aware of their own potentials before they addressed the issue of improving their CPR.

The last three units, taught as a single integrated course, were directly focused on improving CPR. However, to set the tone of the training and to impress upon the trainees the sophistication as well as relevance of the whole training, Unit 7 (Diagnosing Program Performance) was taught at the very beginning of the training, in the first week. During this unit, which was driven by the Jain System Diagnosis Model and taught through CASIM, each trainee did a systematic analysis of his/her thana family planning program and identified the factors responsible for the current CPR. From this list, by using Zones of Influence and Comfort paradigm, they selected those factors over which they believed they had adequate influence and felt comfortable in using this influence in changing the behavior of these factors. Since in the eyes of the trainees, these factors were the only manipulable factors for achieving improvement in their CPR, these were called Focal Factors.

The remaining two units in this sequence were taught last, toward the end of the training. Here, the aim was to help each trainee develop a sound and achievable goal for the

improvement in his/her thana CPR, help each trainee develop an appropriate strategy for achieving this goal and to help them prepare a detailed action plan for the implementation of this strategy.

Goal Development

Goal setting should not be a purely intuitive process. There are several methods of varying degree of complexity which could systematise this process. These include: system diagnosis, trend extrapolation, PIP analysis, Pareto charting and mapping. (This observation should be noted by those who are advocating target-free and bottom-up approach to goal setting, but are having seminal difficulties in operationalizing it. The result has been a lot of hot air and smoke, but little fire.) Using all these techniques, each trainee developed his/her own goal for CPR improvement. In this exercise, they were subjected to the following constraints:

1. The desired improvement must be achieved within 12 months after the training.
2. Each thana should consider increasing its CPR by at least 4 percentage points. A lower as well as a higher goal should be supported by proper calculation.
3. There should be no expectation that additional/new resources would be available to facilitate the achievement of their goals.
4. Increase in CPR must be coupled with significant improvement in the continuation rate.
5. Increase in CPR should not be achieved at the cost of the clinical methods; instead, efforts should be made to increase the ratio of the clinical methods in the method mix.
6. Increase in CPR should not be at the cost of maternal and child health services. Any reduction in the use of these services will be held against them.

This exercise resulted in the development of strong pressure from the trainees to raise the minimum improvement from 4 percentage points to 6. However, in the light of the fact that several thanas were already reporting CPR of more than 60 percent, it was decided to leave the minimum unchanged. However, all thanas set their goals of CPR improvement ranging from 6 to 10 percentage points. These averaged to 8 percentage points (Table 2).

Table 2 Goals for CPR Improvement Set by 19 Thanas

Sl. No.	Thana, District	Baseline	Improvement goal (percentage points)
1.	Alamdanga, Chuadanga	55.3	10.0
2.	Bagatipara, Natore	64.4	6.0
3.	Burichang, Comilla	48.3	6.0
4.	Companigonj, Sylhet	26.7	8.0
5.	Duara Bazar, Sunamgonj	39.7	10.0
6.	Faridpur, Pabna	51.4	9.6
7.	Fultala, Khulna	59.0	9.0
8.	Gomastapur, Nabobgonj	48.8	6.0
9.	Harirampur, Manikgonj	59.3	6.7
10.	Joypurhat, Joypurhat	67.6	6.0
11.	Kotechandpur, Jhenaidaha	56.7	8.0
12.	Lalmohan, Bhola	42.2	9.0
13.	Mirpur, Kushtia	59.0	10.0
14.	Moheshkhali, Cox's Bazar	38.0	6.0
15.	Satkania, Chittagong	34.3	10.0
16.	Saturia, Manikgonj	53.0	9.0
17.	Shahrasti, Chandpur	55.0	8.0
18.	Sirajgonj, Sirajgonj	52.8	7.2
19.	Tongi, Gazipur	53.2	8.0
	Average*	50.8	8.0

* Not adjusted for differences in population size of thanas.

It should be re-emphasized that these goals were not set arbitrarily or intuitively; instead, they were developed after a fair amount of analysis based on the above mentioned techniques.

Strategy Development

As the use of the term 'strategy' has become fashionable, so has its misuse. Often any decision to do almost anything is called strategic action. The concept of strategy, originally developed in the military, stands for a central approach to govern the total behavior of a military during the course of a war. Strategy is contrasted from 'tactics'; the former stands for that decision which binds the conduct of all the forces for all the time during the course of the war; the latter refers to opportunistic decisions taken to determine actions in a particular battle or scrimmage. Further, for one war, only one strategy is needed, not ten. Indeed, the adopted strategy would generate a series of different actions but all these actions would be bound by the strategy. Also, the strategy may not manifest itself in all spheres of action in the same way, but different manifestations should not be confused with multiplicity of the strategy.

Teaching of this concept of strategy was one of the most difficult tasks. Teaching specific techniques for generating decision options (the five techniques taught were: Jain System Diagnosis, SWOT Analysis, BCG Portfolio Analysis, Porter Matrix and Fishbone Technique) was fairly easy; but the trainees had a lot of difficulty in understanding the basic concept of strategy. They expected that the application of an analytical technique would produce the needed strategy. They had a great deal of difficulty in understanding and accepting that strategy development was not a mechanical process, and that the development of a sound strategy required not only high quality analysis, but also a high degree of creativity and a lot of boldness. In fact, the process of strategy development could be stated in an equation:

$$S f (60P+40A), \text{ where}$$

S is Strategy
P is Personality characteristics
A is Analysis

A good deal of this problem arose due to the fact that the trainees were products of a system which emphasized conformity (vis-a-vis creativity) and playing safe (vis-a-vis taking risk). A risk-averse mindset is a barren mindset in which neither creativity nor boldness grows. Therefore, a fair amount of energy was invested in unlocking the trainees' creativity and enterprise through CASIM and T-Group (In fact, this was a re-enforcement of the process started in the unit on Human Resource Management.). At best, the success was uneven and partial. All the same, they came to realize and accept that their own level of professional concern, commitment and competence (3Cs) was largely responsible for the current state of their programs, and therefore any improvement in the performance of their programs had to start with a significant improvement in their own 3Cs.

Facing the problem is taking the first (but an essential and often the most difficult) step toward solving it. The trainees were encouraged to develop their own personal plans to achieve improvement in their own 3Cs and to project it appropriately. Individual counseling was made available to those needing help in this regard. Development of their own 3Cs was not treated as a strategy, but was considered an essential prerequisite for goal achievement.

In the light of the fact that all the trainees were faced with more or less similar circumstances, they uniformly selected a similar strategy, viz. improvement of the 3Cs of their subordinates through improved supervision, monitoring and on-job training. This strategy was selected out of a large number of options developed, by examining the feasibility as well as relative soundness of each option.

Implementation Planning

Poor performing systems are generally characterized by decorative goals, ad hoc strategy, make-believe planning and/or half-hearted implementation. Developing a sound and feasible goal and strategy is essential but not sufficient for success. They must be followed by sound planning and implementation. Consequently, significant emphasis was placed on teaching the methods of converting a strategy into a feasible plan, and thus prepare a plan which would help the trainees achieve their goals within 12 months.

This teaching was driven by the Hoshin Kanri Approach (first, select and focus on 'vital few'; and second, integrate the strategy in all aspects of operations through appropriate alignment) on one hand, and the use of Gantt charts and CPM/PERT, on the other. The result was a detailed 'action plan' for each thana which identified by weeks/months/quarters what would be done, by whom, by when, using what resources, and from where those resources would come.

Action Plans

These plans ranged from 50 to 100 pages in length. Although the quality of writing and presentation was significantly less than what could be, these plans included all essential details needed by the trainees for achieving their goals. Each plan included brief chapters on the main characteristics of the thana and a brief history of its family planning program, diagnosis of the current performance, goal for the next 12-month period together with the analysis done for generating the goal and strategy to be used to achieve this goal together with the analysis done for the development of the strategy. The rest of the report contained details regarding the implementation.

The Follow-up

Since the goal of this training program gave primacy to achieving a certain level of improvement in the trainees'

CPR, the 12-month follow-up was at least as important as the class room based training. As noted earlier, the decision on the follow-up was not formalized until several weeks into the training. Two other decisions had to be made before the follow-up component of the training could be approved by the government, viz. the action plans prepared by the students needed to be accepted as official annual plans for the nineteen thanas, and the government needed to agree not to transfer these thana officers for 12 months, starting immediately after the formal training of 14 weeks. Both these decisions were unprecedented and, therefore, needed proper study. But the important thing is that these decisions were made and the follow-up component was approved.

Immediately following this approval, it became clear that The Asia Foundation which had been managing the training would not be funded by the USAID for the next project period for activities in the population field in Bangladesh. Therefore, its services would not be available for managing the follow-up. Instead, another cooperative agency of USAID, viz. AVSC International - Bangladesh, was mobilized to manage this very important phase. Until this decision, AVSC had had a marginal involvement with this training. Therefore, it had to orient itself about it in a great hurry.

The follow-up phase had three aims: to monitor progress, to facilitate progress, and to maintain and strengthen the morale of the trainees. To achieve these aims, the following means were utilized:

1. Each trainee submitted a monthly report which consisted of three parts: a daily diary of activities; a summary report on a prescribed form regarding planned activities for the month, especially their status and problems faced/resolved/not resolved; and a copy of the government prescribed MIS form sent each month to the Family Planning Directorate. The requirement for the daily diary was introduced with much hope. On one hand, these were to generate the process related information which would allow insights into the on-job behavior of the trainees for achieving their goals. On the other hand, it was believed that the daily diaries would encourage the trainees to do a certain amount of introspection regarding their modus operandi. This, in turn, may lead them to become more analytical in their decision-

making. However, it became clear very early in the follow-up that the requirement of the daily diaries was a non-starter. Not used to writing and submitting narrative reports on their day-to-day work, the trainees found this requirement too burdensome.

During the briefing on the follow-up in which all reporting requirements were explained, the trainees expressed many concerns about the submission of daily diaries. They agreed to it reluctantly only when told that they should try it for a few months and that requirement would be abolished if found unworkable. Further, it was agreed that these daily notes would be about one page in length. As a result, these daily diaries tended to be very sketchy providing little useful information on how they went about in the pursuit of their goals. Further, inadequate staffing for the management of the follow-up did not allow proper processing of even these sketchy notes. Therefore, the requirement was dropped when several questions about its usefulness were raised in the Mid-Term Review Conference. (This conference is described under point #4 below.)

2. A follow-up committee consisting of the following was appointed by the Secretary, Health and Population, Government of Bangladesh to oversee their follow-up:

- Director of Administration, Directorate of Family Planning, (Chair)
- Project Director, MIS, Directorate of Family Planning
- Bangladesh Representative, AVSC International
- A representative of USAID, Dhaka
- UNC Director of the Training
- UNC Training Coordinator in Dhaka

The committee was backed by a senior staff of AVSC International as well as the UNC Training Coordinator. They received and acknowledged the reports, prepared summary statements after reviewing the reports (see Table 3 for an example) and distributed these to all members of the committee. These summaries focused on the problems faced by the trainees and their attempts to solve them. It should be pointed out that during the training a lot of emphasis had been placed on developing proactivity in solving their own problems and not relying on their superiors for everything.

The committee met more or less monthly to review the progress of the trainees and to take appropriate facilitating actions. These actions were limited to those which did not require allotment of additional resources or giving preferential treatment. By and

Table 3 Summary of Follow-up Reports, December 1997

Sl#	Problem faced	Name of thana with the problem	Actions taken by the trainee
1.	No Medical Officer (MCH) in the thana resulting in reduction of sterilizations	Tongi, Gazipur	Borrowed doctors from other thanas
2.	Charge not handed over by the previous FWV of Tilly Union	Saturia, Manikgonj	Deputy Director (FP) was requested to take action
3.	Administrative action was taken against one FWA who tried to create problems at local level, resulting in a grievance	Mirpur, Kustia	Problem solved through open discussion with the involvement of FPIs and Thana officials
4.	Medical Officer (MCH) has not received sterilization training	Mirpur, Kustia	Contacted Deputy Director (FP); he and I met with THFPO who assured early action.
5.	Shortage of DDS kits, satellite kits and MCH medicines	Moheshkhali, Cox's Bazar	Informed the higher authority
6.	MIS and other GOB reporting forms not available	Lalmohan, Bhola	Prepared hand-made forms and then photocopied these forms by using my own money.
7.	Funds for giving mandated incentives to sterilization clients not received	Tongi, Gazipur	Clients were assured that money would be given to them later when funds would be received.

Problems which trainees could not solve and needed help:

1. Irregular flow of supplies
2. Non-availability of trained staff
3. Difficulty in accessing needed training
4. Transfer of key staff to other thanas

large, the committee tried to improve the flow of supplies and funds by recommending actions by appropriate officials. However, these recommendations were not always effective and were often lost in the bureaucratic shuffle, despite direct involvement of Director (Administration) who chaired the Committee, and the follow-up by the AVSC/UNC staff. But the important thing was that the trainees knew their work was being watched by their superior officers and other stakeholders. For sustaining the Hawthorne Effect, this element of the follow-up was most potent.

3. The third element was site visits by the members of the follow-up committee as well as other senior officials of the government and USAID. It was thought that these visits would not only boost the morale of the trainees, but would also generate an insight into the modus operandi of the trainees. Unfortunately, this element of the follow-up fell far short of the original intent. The primary contributing factors were: a lack of full appreciation of this activity, inability to make time, and inadequate budget. As a result, it did not become an organized and regular activity. Very few trainees were visited and the visits did not always generate the desired effect because the visitors were not fully sensitive to the strategy adopted for the training.
To make up for the lack of site visits, the Director of the training program wrote several inspirational letters to the trainees, but they were a poor substitute for face-to-face interaction.
4. The last mechanism was the Mid-Term Review Conference. After six months into the follow-up, all trainees, together with one official from each thana who played a key role in the implementation of their action plans, were invited for a day long conference in Dhaka to share their progress and experiences and to develop common solutions to the problems faced.

The conference was attended by all concerned, including the members of the Follow-up Committee, and other senior officials of the government and representatives of the donor organizations. The deliberations resulted in streamlining the procedures for submitting monthly reports (Do not send these through the government prescribed channel, but send directly to AVSC with a copy to immediate superior.), and

receiving feedback from the Follow-up Committee (AVSC will inform each concerned trainee about the action taken by the Committee about his/her concern/problem), clarification of the procedure for ensuring regular flow of contraceptives and medical supplies (Contraceptives were plentiful but DDS kits were in short supply. The trainees need to be more proactive in requisitioning and picking up the supplies), ensuring needed clinical training (Clinical training was available from NIPORT, AVSC, Marie Stopes and others. They had to be more proactive in nominations as well as developing direct contacts with the training providers), manpower issues (Directly contact the Director, Administration) and similar other matters.

Further, since the efforts of the trainees could not succeed without the support of their thana level colleagues, it was decided to recognize (by an award of a formal certificate) one thana official from each thana who provided the most support. Such officers were to be nominated by each trainee.

An important feature of the conference was the presentation and discussion of the mid-term evaluation study prepared by the MIS Unit of the Directorate of Family Planning, under a contract with AVSC and in consultation with the Follow-up Committee. This study is described in a following section, but its main findings that (1) the baseline as well as the progress reported by the trainees was essentially correct, and (2) given their progress to-date, the goals set by the trainees were quite realistic, contributed handsomely to the morale of the trainees.

The Outcome and the Verification Studies

The aim of the training was to achieve at least 4 percentage points improvement in the CPR of each thana without any adverse effect on the method mix and MCH services, and significant improvement in the continuation rate. In the preparation of their plans, the trainees had set much higher goals, which averaged to 8 percentage points improvement in their CPR.

The trainees were well aware that their reported baseline and endline would be verified by rigorous studies conducted by external experts. They also knew that these studies would not rely on the service statistics generated by them, but would collect data directly through household surveys.

Evaluation Study # 1

Two studies were included in the training design: one to verify the baseline and the other to verify the endline. The baseline verification was to take place soon after the conclusion of the 14-weeks training in Dhaka, and at the front end of the 12-month follow-up. Although the training concluded on June 26, 1997 and the follow-up phase started on July 1, 1997, the baseline verification study could not start until November 1997. Several unforeseen reasons contributed to this delay, including transfer of management responsibility from The Asia Foundation to AVSC International; issues regarding the definition of 'external expert' and the procedure to be used for the selection; and the need to secure additional funds to support this activity. However, this delay of nearly five months allowed this study to take the form of a mid-term evaluation.

After much discussion, it was decided that 'external' did not mean 'from outside Bangladesh', but a person/organization not associated with the training. Further, it was decided that the Follow-up Committee was the appropriate authority to prescribe the selection procedure and to make the final decision on the selection. After discussing the relative merits of various alternatives, the Committee decided to give this responsibility to the MIS Unit of the Directorate of Family Planning, because of its experience in field studies, the ready availability of its large and trained field staff, and a significant cost advantage. Since the MIS Unit was a government body, it needed to charge only for the out-of-pocket cost pertaining to travel and per diem of the field staff.

Realizing the importance of this study, Dr Tofayel Ahmed, Ph D, Project Director, MIS Unit, (who was also a member of the Follow-up Committee) decided to head the study. As required by the Follow-up Committee, he submitted his study design to it for review and approval.

The goal of the study was to verify the baseline on July 1, 1997 and endline on November 30, 1997 reported by the trainees for CPR and method mix. The field work started in late November 1997 and concluded in January 1998. The sampling and data collection were supervised by the Deputy Director, MIS Unit.

All 19 thanas were included in the study, each thana as an independent unit of the study. A three-step sampling method

was used to select the respondents: firstly, from each thana, 10 percent of the units (the lowest administrative entity) were randomly selected; secondly, from each unit (where the primary registers for family planning service statistics are maintained), a random sample of 5 percent of the current users was selected; and lastly, while selecting the user sample, the ratios of modern methods users, as found in the Bangladesh Demographic and Health Survey (BDHS) 1996-97, was applied to ensure proper representation of the users of the different methods. Thus, the 5 percent user sample was divided as follows: 21 percent for sterilization, 5 percent for IUD, 15 percent for injectables, 50 percent for pills and 9 percent for condoms.

All those selected were interviewed in their homes by trained interviewers, using a short, simple and pre-tested questionnaire which sought month by month information, June 1 to November 30, 1997 on contraceptive use (defined as continuous use after acceptance) as well as on the method used. Since no provision was made to replace those who were not available for the interview, 2 percent of those selected could not be interviewed.

It should be noted that since the sampling was based on the reported users, and not on eligible couples, this study could not determine either the actual CPR or the under reporting; it could only find out whether there was any over-reporting.

The main findings of the study were:

1. During the five-month period of the follow-up covered by the study, the average increase in the CPR for all the 19 thanas, according to the reports submitted by the trainees, was 5.47 percentage points. Faridpur reported the highest increase (10.6 percentage points) and Moheshkhali the lowest (2 percentage points). See Table-4.
2. The study found that over-reporting of the CPR was limited to 8 thanas, and the error rate ranged from 0.9 percentage points to 6.4 percentage points, resulting in an average of 1.5 percentage points for all 19 thanas (Table 5). When CPR improvement figures are adjusted in the light of this finding, the corrected increase was 3.99 percentage points, less than one percentage point per month. If the improvement were to continue at this rate, the trainees

would achieve an average annual increase of 9.6 percentage points, a full 1.6 percentage points higher than planned. The study presented no explanation for this extraordinary increase.

3. The error rate in the reports on method switch was both high (average of 3.6 percent with a high of 10.8 percent) and pervasive. However, there was no significant upward or downward switch from clinical methods to non-clinical methods (Table 5).
4. Almost all thanas had over-reported their contraceptive continuation rate by an average of 6.6 percent, with a high of 21.4 percent and a low of 2.5 percent (Table 5).

Table 4 Improvement in CPR of 19 Thanas between July 1 and November 30, 1997

Sl. No.	Thana	Baseline*(%) June 1, 1997	Endline**(%) Nov.30, 1997	Improvement (% points)
1.	Alamdanga	55.3	60.1	4.9
2.	Bagatipara	64.4	67.0	2.6
3.	Burichang	48.3	53.0	4.7
4.	Companigonj	28.0	31.0	3.0
5.	Duara Bazar	39.7	47.9	8.2
6.	Faridpur	51.3	61.9	10.6
7.	Fultala	59.1	68.2	9.1
8.	Gomastapur	48.8	53.4	4.6
9.	Harirampur	56.2	60.0	3.8
10.	Joypurhat	62.9	66.0	3.1
11.	Kotechandpur	56.7	61.3	4.6
12.	Lalmohan	42.2	48.2	6.0
13.	Mirpur	59.0	64.3	5.3
14.	Moheshkhali	41.4	43.4	2.0
15.	Satkania	34.3	42.0	7.7
16.	Saturea	53.0	62.0	9.0
17.	Shahrasti	55.0	62.6	7.6
18.	Sirajgonj	52.8	57.0	4.2
19.	Tongi	53.2	56.2	3.0
Average increase***				5.47

* Based on the data used by the trainees during their 14 weeks training period for the preparation of their 1 year plan.

** As reported by the trainees.

*** Not weighted for the size of thanas.

In the light of the popular belief that the official service statistics in Bangladesh suffered from a pervasive problem of large over-reporting, these findings were much better than expected. More so, when most of these errors of over-reporting were explained by the trainees with plausible

reasons. The over-reporting of CPR found in 8 thanas was explained by the use of different definitions of contraception. While most trainees had defined contraception as the use of a modern method of contraception (the definition used in the training), these thanas had continued to use the definition prescribed by the government which included traditional methods (abstention, withdrawal, herbs, etc.).

The more pervasive problem of the high rates of error in method-switch and contraceptive continuation rate was also caused by the way in which the goals of the training were stated and the reporting prescribed. The goal of the training placed emphasis only on the switch from clinical methods to non-clinical methods, and gave no importance to method-switch within each of these two categories. Therefore, the trainees (according to them) were less careful in reporting the intra-category method switch. Similarly, the reporting system instituted by the government asked for CAR, and not CPR. (CAR is calculated on the basis of the number of non-clinical contraceptives distributed plus number of

Table 5 Degree of Over-reporting by the Trainees

Sl. No.	Thana	Sample size studied	CPR		Contraceptive continuation		Method continuation	
			#	(%)	#	(%)	#	(%)
1.	Alamdanga	173	0		6	3.5%	2	1.2%
2.	Bagatipara	80	0		2	2.5%	0	
3.	Burichang	129	2	1.6%	6	4.7%	9	7.0%
4.	Companigonj	54	0		6	11.1%	4	7.4%
5.	Duara Bazar	70	3	4.3%	15	21.4%	3	4.3%
6.	Faridpur	65	0		2	3%	1	1.5%
7.	Fultala	80	0		4	5.1%	0	
8.	Gomastapur	92	0		11	12.0%	4	4.3%
9.	Harirampur	83	1	1.2%	11	13.3%	9	10.8%
10.	Joypurhat	120	0		9	7.5%	6	5%
11.	Kotechandpur	87	0		3	3.4%	1	1.2%
12.	Lalmohan	81	2	2.5%	5	6.2%	3	3.7%
13.	Mirpur	172	11	6.4%	5	2.9%	7	4.1%
14.	Moheshkhali	59	3	5.1%	5	8.5%	6	10.2%
15.	Satkania	134	6	4.5%	17	12.7%	4	3.0%
16.	Saturea	111	1	0.9%	11	9.9%	4	3.6%
17.	Shahrasti	112	1	0.9%	5	4.5%	2	1.8%
18.	Sirajgonj	195	0		5	2.6%	2	1.1%
19.	Tongi	66	0		0		3	4.5%
Total		1963	30	1.44%	128	7.5%	70	4.4%

clinical contraceptives administered during a given period. But the CPR is calculated on the basis of actual use of the contraceptives.) Further, the government placed no emphasis on reporting the continuation rate. The training required the reporting of CPR and placed high emphasis on the continuation rate due to its conceptual soundness in the context of fertility reduction. The training mandated method of reporting, therefore, was a significant change for the trainees. As a result, they had difficulty in adjusting to it.

Despite these explanations, the findings, especially the unexpectedly high rate of increase in CPR, left several stakeholders doubtful and uncomfortable about the objectivity and/or the soundness of the study. This discomfort became apparent to the trainees during the mid-term review in January 1998, when the findings of this study were presented and discussed. Although no specific fault in the design and/or conduct of the study was identified, the need for a greater degree of care in the second study to be conducted toward the end of the follow-up was highlighted.

Evaluation Study #2

According to the original plan, the second study was to focus on the verification of the reported endline at the end of the follow-up period. However, the Follow-up Committee decided that it would be more prudent to verify both the baseline at the start of the follow-up and the final endline of each thana. This meant that both over-and under-reporting were to be estimated. Further, the study was required to assess the improvement in CPR as well as the continuation rate and the shift in the rates of clinical and non-clinical methods.

To ensure full objectivity, it was decided to give this study to an organization whose personnel had no direct or indirect involvement in designing, teaching or follow-up of this training. Further, they should not have had any relationship with the Director of the training as well as with the University of North Carolina. After informal review of several organizations in Bangladesh, the University Research Corporation (URC) was selected because of its arm's length distance from the training, the training Director and UNC. More importantly, it enjoyed a high reputation for the high

quality of its research, and had significant experience in conducting large field studies. Further, it was decided that the study would be headed by the head of URC, Professor Abul Barkat, Professor (Economics), University of Dhaka, who had his advanced education in Bangladesh and USSR.

The study was conducted over a 3-month period, March-May 1998, and covered only the first nine months of the follow-up, — July 1, 1997 to March 31, 1998. It was a much larger study based on a sample of 7,273 married women of reproductive age (MWRA). It was almost four times as large as the sample of the first study, and it was drawn from MWRAs and not reported users, to be able to estimate both over-and under-reporting.

All the 19 thanas were included, and each thana was considered as an independent study unit. In each thana, each union was included. From each union, one unit was randomly selected, and from each of the 159 units thus selected, lists of MWRAs were obtained from the Eligible Couple Registers maintained by the Family Welfare Assistants (FWAs). From these lists, a total of MWRAs in these 159 units was computed by thanas and unions, and the proportion of each union in its thana calculated. This proportion was used to determine the size of the sample in each selected unit, which was drawn using the statistical random number table. To deal with the problem of non-availability of the selected respondents, for each union, a random replacement sample, varying from 10 to 15, depending on the union's sample size, was also selected (Since from each union, only one unit was randomly selected for the study, this union-based sample was actually for the selected unit.) The sample size for the thanas ranged from 307 to 400.

A questionnaire in Bangla was prepared and pre-tested twice. In designing the questionnaire, special attention was given to the retrospective nature of the study in which the accuracy of the respondents' recall was a critical factor. To minimize the problems related to memory, several probing and filtering techniques were utilized: ever use of family planning, pregnancy status during the previous 12 months by month, age of the youngest child, use of permanent method and date of initiation of the use of the permanent method and date of the last initiation of the use of family planning.

After two days of intensive training, a total of 71 persons, (48 Field Investigators, 22 Field Supervisors and 1 Quality Control Officer) were deployed for data collection. In the training, the main emphasis was on the proper way to organize field work, use of the questionnaire and probing techniques. In addition, two Research Assistants from URC regular staff were mobilized for field monitoring.

The field work was conducted in 21 teams; each team consisted of 2 to 3 Field Investigators and one Field Supervisor. The third Field Investigator was used when the sample was widely dispersed, transport was relatively poor, or the size of the sample was relatively large. The data were collected over a period of 22 days, — April 13 to May 4, 1998.

The Quality Control Officer reviewed each completed questionnaire to ensure proper completion before sending it for coding and data entry. The SPSS statistical package was used to enter, edit and analyze the data.

The main findings of the URC study were:

1. While the trainees tended to inflate their CPR baseline (by 1.2 percentage points on average), they also

underestimated their achievements (by 2.8 percentage points on average). However, this pattern was not uniform in all the 19 thanas. While 11 thanas had overestimated (by a high of 8.8 points in Shahrasti and a low of 0.5 points in Lalmohan), 8 thanas had underestimated their baseline (by a high of 6 percentage points in Kotechandpur and a low of 1.2 points in Fultala). Similarly, while 12 thanas had underestimated their CPR endline (by a high of 7.7 points in Burichang and a low of 1.4 points in Tongi), 7 thanas had overestimated (by a high of 8 points in Shahrasti, and a low of 0.5 points in Satkania). See Table 6.

This finding brought home an important learning that verification studies should give attention to both over- and under-reporting. But it also raised an important question regarding the reasons for overestimating the baseline and underestimating the endline. Common sense indicates that those interested in claiming a high level of progress, should do just the opposite, — underestimate the baseline and overestimate the endline. Discussions on this subject with the thana officers threw up plausible explanations: until they came for the training, all thana officers worked under

Table 6 Thana CPR Baseline and Endline According to the URC Study and the Trainees

Sl. No.	Thana	Baseline (July 1, 1997)			Endline (March 31, 1998)		
		URC	Trainee*	Difference	URC	Trainee	Difference
1.	Alamdanga	54.5	56.7	-2.2	62.4	64.7	-2.3
2.	Bagatipara	63.3	64.0	-0.7	71.7	70.0	+1.7
3.	Burichang	45.4	48.2	-2.8	61.9	54.2	+7.7
4.	Companigonj	27.7	26.7	+1.0	36.8	34.7	+2.1
5.	Duara Bazar	33.2	39.7	-6.5	46.1	49.7	-3.6
6.	Faridpur	50.0	51.3	-1.3	63.8	61.0	+2.8
7.	Fultala	60.2	59.0	+1.2	72.0	68.1	+3.9
8.	Gomastapur	50.4	48.7	+1.7	58.7	54.7	+4.0
9.	Harirampur	60.5	59.2	+1.3	65.1	66.0	-0.9
10.	Joypurhat	63.8	67.6	-3.8	68.6	73.6	-5.0
11.	Kotechandpur	62.7	56.7	+6.0	68.0	64.7	+3.3
12.	Lalmohan	41.7	42.2	-0.5	54.2	51.2	+3.0
13.	Mirpur	61.0	59.0	+2.0	73.3	69.0	+4.3
14.	Moheshkhali	28.7	34.0	-5.3	41.8	44.0	-2.2
15.	Satkania	38.2	34.0	+4.2	43.5	44.0	-0.5
16.	Saturea	55.8	53.0	+2.8	64.1	62.0	+2.1
17.	Shahrasti	46.2	55.0	-8.8	63.0	55.0	-8.0
18.	Sirajgonj	50.3	52.8	-2.5	62.0	59.9	+2.1
19.	Tongi	51.0	53.2	-2.2	62.6	61.2	+1.4
Weighted Average		50.0	51.2	-1.2	59.8	57.0	+2.8

*In the mid-term review, the trainees were asked to check the soundness of their baseline and to update these to July 1, 1997, the start of their follow-up. These are the corrected figures.

a system in which they were required to meet government-set targets. Since not meeting the targets reflected poorly on them, there was a temptation to inflate their achievements. In the preparation of their one-year plan for the follow-up period, they had used the official statistics for their baseline because they had no other data that could be considered more reliable. Also, they did not have any basis for correcting their data. As a result, some of the baselines were inflated.

Two explanations were offered for underestimation of the endline: first, in many of these thanas, NGOs played an important role in the provision of family planning services. Although all NGOs are required to report their service statistics to the Family Planning Officers in their thanas, who, in turn, include them in their monthly MIS reports sent to the Directorate of Family Planning, the NGOs do not always do so; and when they do, they tend not to send complete reports. The second explanation was similar to the first, except that it focused on the union and unit staff. It was stated that the reports submitted by these grassroots service providers were not always prepared with full care (a complex system of record keeping through multiple registers contributed to this problem) and that these reports tended to be incomplete. Therefore, a study based on a household survey is likely to pick up more cases of users than reported through the official channels.

In response to the question regarding their entrenched tendency of over reporting their achievements, it was noted that during the follow-up period a determined effort was made by the trainees to contain this habit, but obviously the results were mixed as shown by the study.

2. The CPR, during the ninth month period covered by the study, went up by 9.8 percentage points, from 50 percent to 59.8 percent (Table 6). The highest improvement, in Moheshkhali, was 13.1 percentage points and the lowest, in Joypurhat, 4.8 percentage points.

The finding of a little more than one percentage point average improvement per month was not too different from the finding of the first study, especially when it is remembered that the first study did not calculate the under-reporting by the trainees. When this figure

was discounted by the estimate of the average rate of increase experienced by the national family planning program as a whole during approximately the same period [In fact, this information was for 1996. According to the Bangladesh Demographic and Health Survey (BDHS), the CPR for the country as a whole in early 1994 was 44.6 percent, and it rose to 49.7 percent by late 1996. This was an increase of 5.1 percentage points in less than two years, or approximately 3.0 percentage points per year], the net increase was more than 6.8 percentage points in 9 months. (BDHS estimate is for 12 months; URC study covered only 9 months). Even if the trainees' reported figures were to be relied upon (which were lower than those of the URC study), the gross average improvement would be 8.15 percentage points, and a net increase of 5.15 percentage points (Table 7).

This high rate of increase raised several questions about the validity of the finding. The primary reason for the questioning was the fact that no other intervention, including a variety of other training programs, had produced improvement of this magnitude. How could this training do what no other intervention had been able to do? Expectedly, interest was expressed in knowing the details of the process used by the trainees to achieve this high rate of improvement. As noted earlier, the requirement for the writing of daily diary by each trainee during the follow-up was instituted to generate these details. But, in the face of several operational difficulties, this requirement had to be discontinued. Consequently, this very useful information did not surface. This gap could have been filled by a scheme of regular and organized site visits by the follow-up staff and others. But, as noted earlier, paucity of funds and personnel did not allow this either.

The second equally important question was regarding other interventions that might have taken place in these thanas during the follow-up or just before the follow-up started. An investigation in this regard by the URC indicated that no other notable intervention (including construction of buildings, supply of transport, increase in manpower/any other resource, and large scale training) had taken place in 16 of the 19 thanas. Burichang and Duara Bazar, whose CPR

Table 7 Improvement (%age points) in CPR of the 19 Thanas between July 1, 1997 and March 31, 1998 according to Trainees and URC

Sl. No.	Thana	Trainees (1)	URC (2)	Difference (1-2)
1.	Alamdanga	8.0	7.9	+0.1
2.	Bagatipara	6.0	8.4	-2.4
3.	Burichang	6.0	16.5	-10.5
4.	Companigonj	8.0	9.1	-1.1
5.	Duara Bazar	10.0	12.9	-2.9
6.	Faridpur	9.7	13.8	-4.1
7.	Fultala	9.1	11.8	-2.7
8.	Gomastapur	6.0	8.3	-2.3
9.	Harirampur	6.8	4.6	+2.2
10.	Joypurhat	6.0	4.8	+1.2
11.	Kotechandpur	8.0	5.3	+2.7
12.	Lalmohan	9.0	12.5	-3.5
13.	Mirpur	10.0	12.3	-2.3
14.	Moheshkhali	10.0	13.1	-3.1
15.	Satkania	10.0	5.3	+4.7
16.	Saturea	9.0	8.3	+0.7
17.	Shahrasti	0*	17.2	-17.2
18.	Sirajgonj	7.1	11.3	-4.2
19.	Tongi	8.0	12.6	-4.6
	Unweighted Average (18 thanas**)	8.15	9.93***	-1.78

* Report not available

** Shahrasti not included

*** According to URC study, weighed average including Shahrasti was 9.8 percentage points.

increased by 16.5 and 12.9 percentage points respectively (according to the URC study) had benefited from the Thana Functional Improvement Pilot Project (TFIPP), and Fultala (11.8 percentage points increase) by the Local Initiative Project (LIP).

(Since these thanas were among those which achieved the highest improvement, this finding shows the healthy compounding effect of multiple interventions.) However, even if these three thanas are excluded from the analysis, the gross average increase in the CPR of the remaining 16 thanas will be 9.1 percentage points.

3. The method mix changed slightly in favor of non-clinical methods, whose share rose from 54.3 percent to 56.3 percent. The fall in the clinical methods was largely due to a fall in sterilizations from 22.6 percent to 19.5 percent (Table 8).

This finding indicates that some of the increase in the CPR was made possible by switching to easier but softer methods. However, even after taking this

Table 8 Contraceptive Use by Method: 19 Thanas Combined

Method	Baseline	Endline
A. Clinical Methods	43.2	41.4
IUD	3.8	3.7
Injectable	16.4	17.2
Norplant	0.4	1.0
Tubectomy	26.6	17.8
Vasectomy	2.0	1.7
B. Non-clinical Methods	54.3	56.3
Pill	49.3	50.2
Condom	50.0	6.1
C. Traditional Methods	2.5	2.2
Safe period/Abstinence	1.9	1.6
Withdrawal	0.4	0.4
Other	0.2	0.2
Total	100.0	100.0

Table 9 Continuation Rate by Contraceptive Methods: 19 Thanas Combined

Method	# At baseline/ endline	# Discontinuing after					# Continuation Rate*				
		1M	2-<3M	3-<6M	6-<9M	9M	1M	2-<3M	3-<6M	6-<9M	9M
Pill	1792/2183	14	21	82	102	104	99.2	98.8	95.4	94.3	94.2
IUD	139/162	2	2	2	5	5	98.6	98.6	98.6	96.4	96.4
Injectable	595/749	1	4	18	32	32	99.8	99.3	97.0	94.6	94.6
Norplant	13/45	-	-	-	-	1	100.0	100.0	100.0	100.0	92.3
Condom	182/267	1	1	10	10	10	99.4	99.4	94.5	94.5	94.5
Safe period/Abstinence	70/69	-	-	3	4	4	100.0	100.0	95.7	94.3	94.3
Withdrawal	13/19	-	-	-	-	-	100.0	100.0	100.0	100.0	100.0
Others	7/9	-	-	-	-	-	100.0	100.0	100.0	100.0	100.0
All	2811/3503	18	28	115	153	156	99.4	99.0	95.9	94.6	94.5

* Calculated on the basis of the baseline, 2811. If calculated on the basis of the average of baseline and endline, i.e. 3157, the all-method discontinuation rate at the end of 9 months would be 95.1 percent.

into account, the overall increase in the CPR was impressive. Also, had the training set a goal for the improvement in clinical methods (instead of using the clinical/non-clinical ratio as a control), the noted switch might not have taken place; instead the ratio of clinical methods might have improved.

4. The all-method continuation rate for 9 months was 94.5 percent. A method by method analysis showed similarly high rates of continuation (Table 9). This finding raised some eyebrows in the same way as the finding on CPR improvement. But the 'doubters' need to realize that a precise goal, especially one developed after much thought by the implementors themselves, is a very powerful motivator in its own right and its power is multiplied manifold when it is backed by a strong Hawthorne Effect.
5. An analysis of the 19 thanas, when classified as high (baseline CPR of 60 percent or above), medium (46 percent to <60 percent) and low (<46 percent) performing, showed that all the 6 high performing thanas remained high performers after 9 months; out of the 7 medium performing thanas, 5 joined the high performers; and out of the 6 low performing thanas, 1 joined the high performers, and 2 joined the medium performing group. However, 3 low performing thanas, Companigonj (BL 27.7, EL 36.8) Moheshkhali (BL 28.7, EL 41.8) and Satkania (BL 38.2, EL 43.5) that remained low performing, achieved an average increase of more than 9 percentage points. This finding indicates that low performers are not destined by their history and circumstances to stay low performers. Through increased Concern, Commitment and Competence, they can overcome these burdens.
6. The rate of CPR improvement in the high, medium and low performing thanas was not uniform. The high performing thanas went up by an average of 7.9 percentage points, the medium performing thanas by 10 points, and the low performing ones by 11.7 points. This indicates that while all three categories of thanas improved their CPR in large measure, the low performing ones were able to achieve the most improvement and the high performing ones the least. This could be for two reasons: in discussions about goal setting by the thanas, it was underlined that CPR of higher than 72 percent was not desired by the

government, and that it was significantly more difficult to raise CPR from 55 to 65 than from 35 to 45. However, whatever the explanation for the higher levels of achievement by the medium and low performing thanas, this finding suggests that a strategy of focusing this type of training on the low and medium performing thanas is likely to produce a much higher rate of return than treating all thanas equally.

Conclusions

This project was undertaken to determine whether a country having very low socioeconomic status, including very low levels of literacy and status of women, could overcome these powerful pronatalist pressures and gain a noticeable degree of control on its population growth rate. Further, can this phenomenon be demonstrated through a planned intervention? This action research in Bangladesh, designed to increase CPR through management training, provides the answers to these questions in firm affirmatives. Countries with low socioeconomic status can achieve a high level of contraceptive use, and thus control their fertility, without waiting for significant improvement in their socioeconomic indicators. Socioeconomic development is not necessarily the best contraceptive; determined effort, executed competently (3Cs), is a much faster and more effective alternative.

A related question needing an empirical answer was regarding the usefulness of management training. The answer that has emerged is that a task-focused, soundly designed and properly conducted management training, backed by a well organised and managed follow-up, can bring about significant improvement in the effectiveness and productivity of a system, — even a system populated by a demoralized and apathetic workforce. While the high rate of improvement in the CPR of the study thanas is a matter of great satisfaction, the exact size of this improvement is less important than the fact that there was significant improvement.

From the point of view of science, this action research has several limitations. Probably, the most important of these relates to the measurement of the 3Cs. Although manipulation of the 3Cs was at the heart of the study, before/after training scores on the 3Cs were not generated. It is mainly because the task of developing culture-appropriate instruments for

measuring Concern, Commitment and Competence, and then testing these to determine their reliability scores, is both time-consuming and expensive. The funding and scheduling constraints (The project was funded from unspent funds that needed to be spent before September 30, 1997.) did not permit these investments. Therefore, it was decided to proceed with the manipulation of the 3Cs without establishing either a baseline, a bench mark or an endline. (It is not always true that if you cannot measure it, you cannot improve it.) Total reliance was placed on the soundness of training design and the process of conducting it.

The second limitation is that the quality of services was not established as a control. Theoretically speaking, an increase in the output can be achieved at the cost of quality. The technology for the assessment of the quality of family planning services is reasonably well developed. But systematic measurement is expensive because of the fact that most of the needed data are not routinely generated, and therefore need to be collected *de novo*. Further, before the needed data can be collected, the situation-specific instruments for the collection of data needed to be designed and tested. Not having the funds or the time, the contraceptive continuation rate was used as a proxy, on the ground that poor quality of services would result in high rates of side effects and complications, resulting in discontinuation of the method and/or contraception. Based on this logic, the observed high rates of continuation testify that there was no deterioration in the quality of services; in fact, the quality might have gone up.

The third issue pertains to the use of MCH services as a control. Earlier it was noted that the CPR was to be improved under three control conditions: no new resources, no decrease in clinical methods and in the provision of MCH services. However, neither of the verification studies was asked to pay attention to MCH services. It was mainly because the collection of these data would have increased the cost of these studies by at least a factor of two. Further, while the available methodology for retrospective studies of contraceptive behavior is considered reasonably satisfactory, the available methodology for retrospective studies of MCH services utilization is considered experimental. This

perception regarding the soundness of available methodology also played a part in the decision not to study the status of MCH services use. However, if the MIS reports submitted monthly by the thanas were to be accepted as a reasonable proxy, these reports showed that the status of MCH services remained unchanged during the follow-up period.

The last issue is essentially theoretical: What is the likelihood that the improvement in the performance would have been as impressive as noted, if multiple indicators of performance were used? To generate the answer to this question and to address some of the above noted concerns, especially those related to the quality and MCH services, a second phase of this project has been mounted. In this second phase study, the length and the contents of the formal training are also treated as study variables. The findings of this study are likely to be available in six to eight months.

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5. Laurel Files Gooch. 1977. *Management planning for population and other human services program: a guide to the Carolina Simulation Method (CASIM)*. Chapel Hill, NC: Department of Health Administration/Carolina Population Center, University of North Carolina.
6. For a readable write-up, see Bechtell, Michele L. 1995. *The management compass, steering the corporation using hoshin planning*. New York: American Management Association, Membership Publications Division.
7. Gilbert, Thosam F. 1978. *Human competence, engineering worthy performance*. New York: McGraw Hill.