Sterilisation Trends in Bangladesh

Supply Side Determinants

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A government's ability and determination to promote family planning services largely depends on its political will as well as the types of policies and programmes it carries out. This paper looks at sterilisation trends in Bangladesh since 1965 and examines various programme and policy hypotheses that have been associated with the observed trends.

I
Introduction

IN the late 1970s Bangladesh experienced a rise in sterilisation acceptors, which continued into the early 1980s. However, in June 1985, it was apparent that for the first time in several years, the annual number of sterilisation acceptors did not surpass that of the previous year. Thereafter, in June 1986, the annual sterilisation acceptor figure decreased to the level of the beginning of the decade. Understandably, these figures raised concern in relevant government and donor circles. The so-called sterilisation decline and a number of hypothesised explanations for it became a major focus of interest. This paper has two main objectives: (1) To describe sterilisation trends in Bangladesh since 1965; and (2) to explore various programme and policy hypotheses that have been associated with observed trends.

Research studies, development plans, literatures and statistical reports were reviewed. In addition, a number of interviews were carried out both at the national and the field level to explore various programme and policy hypotheses related to the changes in sterilisation acceptance. At the field level, government managers responsible for sterilisation programme, clinicians, and grass roots level workers in both public and private sectors were interviewed. These interviews took place in two extension project subdistricts, i e, Abhoynagar and Sirajgonj. At the national level, key people associated with policy formulation, implementation and evaluation in both government and non-government sectors were interviewed. All statistical information relate to the fiscal year, i e, July to June.

II
Sterilisation Trends in Bangladesh 1965-1990

Overall Sterilisation Trends

Examination of sterilisation trends over a quarter of a century reveals two distinct phases, a pre-Liberation and a post-Liberation phase. Between 1965-70, during the Third Five-Year Plan of the Pakistan period, vasectomy was the most preferred method. In the post-Liberation period, after 1971, by contrast, the dominant method of sterilisation has been tubectomy, except for the years 1974-77 and 1985-87 when the vasectomy acceptors were slightly higher than the tubectomy (Figure 1). Sterilisation performance at the end of the 1960s was higher than in 1981-82, but plummeted to an insignificant level at the time of the Liberation war. In the post-Liberation period, acceptor figures increased annually until 1984, with the exception of the year 1978. Increases, in the early 1980s were relatively steady, fluctuating between 40,000 and 60,000 per year. However, for 1984, the rate of increase was unusually steep, with the addition of 2,00,000 more acceptors than the previous year.

After 1984, annual number of sterilisations started declining, first at a slower rate, followed by a steep decline for 1986. At the end of 1987, acceptor figures had once again increased, reaching 1983 levels, but much less than those of the peak year performance of 1984. There was a sharp decline in number of sterilisations during FY 1988, followed by a slight increase and plateauing in 1989 and 1990. In sum, then, we see that while the year 1978-84 were characterised by rapid rise in sterilisation acceptors the years since then have witnessed a fair amount of fluctuations in sterilisation trends at a much lower level of performance.

In 1966 during the first year of the government programme, 5,000 vasectomy acceptors were recruited, but within three years, by June 1969, the number of acceptors had increased 78 times reaching almost 4,00,000. Vasectomy figures for this particular year have remained a record, although these statistics are generally considered unreliable [1]. The next year saw a decrease, but the performance was still 63 times higher than 1966. During the Liberation movement and in the immediate post-Liberation period, very few vasectomies were performed, though exact statistics for this period are not available.

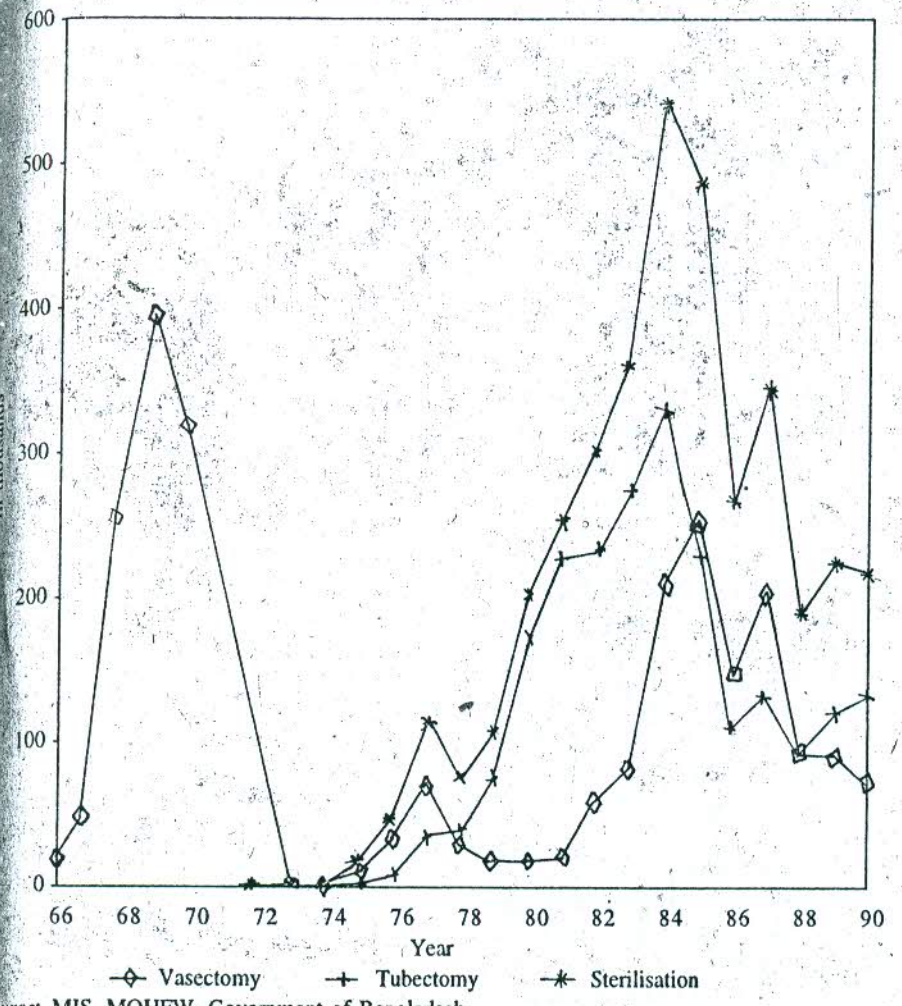
During the First Plan period of Bangladesh (1973-78), the acceptance of vasectomy started to increase slowly, but this trend was not maintained, and the years 1978-81 saw consistently low levels of vasectomy acceptors. From 1981 to 1985 increases in vasectomy acceptors occurred, with a particularly steep increase in 1984. Since then, except for a small increase in 1987, vasectomy performance has been decreasing.

Tubectomies were rare before 1973 but for the next 11 years, until June 1984, annual increases occurred. For the next two years tubectomies declined sharply, witnessing a small rise in 1987, and again in 1989 and 1990. Thus, for the post-Liberation period tubectomies have been the dominant method of permanent contraception except 1985-88. While overall acceptance levels for the two methods are quite dissimilar for most of the post-Liberation period, after 1981 both methods experienced a marked increase, followed by a fair degree of fluctuation since 1984-85.

A detailed breakdown available with the MOHFW Management Information System since January 1982 makes it possible to examine quarterly sterilisation trends for the period of January-March 1982 quarter to April-June 1990 (Figure 2). The most common feature in this period is that for overall sterilisation the second and third quarter (April to September) together are lower than the fourth and third quarter (April to September) together are lower than the fourth and first quarter (October to March). This phenomenon is largely due to lower performance of tubectomies. The monsoon and flooding during April to September disrupts communication in Bangladesh and restricts mobility of rural women. Vasectomy performance during the monsoon has not been hampered as men are able to travel during the monsoon.

Overall trends for the national programme were found in government and NGO programmes. A series of contraceptive prevalence surveys over the period of 1979-91 report[2] more than three-fold increase in contraceptive prevalence rate (CPR) in

FIGURE 1: STERILISATION ACCEPTORS IN BANGLADESH, 1966-90



Source: MIS, MOHFW, Government of Bangladesh.

1991 from about 13 per cent in 1979. Rate of contraception by modern reversible methods has increased at a much faster rate than by sterilisation during this period (Figure 3). The pace of increase for modern methods was more than double than that of sterilisation during 1985-91, a period of marked growth in CPR.

III
Programme and Policy Development

We have discussed sterilisation trends in the previous section. We shall now present a chronological account of policy and programme developments to highlight the supply-side factors which influence sterilisation acceptance in Bangladesh during 1966-90.

Pre-Liberation Period (1966-70): In the mid-1950s, limited family planning services were provided by private voluntary organisations in urban hospitals and clinics. Five years later government initiated its own programme in government hospitals and rural dispensaries[3]. It was soon realised that clinic-based family planning activities could not succeed without a outreach component, and that the service delivery capacity and operational procedures within the health sector did not suffice to mount a strong programmatic effort. With the development of an explicit population policy in 1965, the Pakistan government moved beyond the health sector towards the establishment of a comprehensive, field-oriented programme.

The Family Planning Council, an autonomous inter-ministerial organisation was created to free the programme from bureaucratic constraints, and to assure quick decision-making and smooth flow of resources from the national level to the field. It was supported by the family planning boards at the provincial and district level. At the district level the most powerful official, the deputy commissioner was made responsible for the programme. An executive-cum-publicity officer and a physician were entrusted day-to-day responsibilities.

Below the district, the thana was the most important administrative unit. A family planning officer supported by two male assistants and one female paramedic provided IUDs and conventional contraceptives. Part-time village dais (midwives), called Local Voluntary Organisers, one each for approximately 4,000 population, were recruited to help the programme. Given their close connection to the local community, dais were able to handle hostility towards family planning at the community level. Both government and private physicians were also mobilised for the programme.

This period was a time of expansion of the physical infrastructure required for effective service delivery. The Third Five-Year Plan of Pakistan (1965-70) authorised establishment of 16 urban clinics, 400 thana IUD clinics and 400 part-time vasectomy operation clinics[4]. By 1968, 19 permanent district-level clinics and 345 permanent thana family planning clinics were established[1]. Family planning activities involved all hospitals, dispensaries, health centres and a large number of individual doctors.

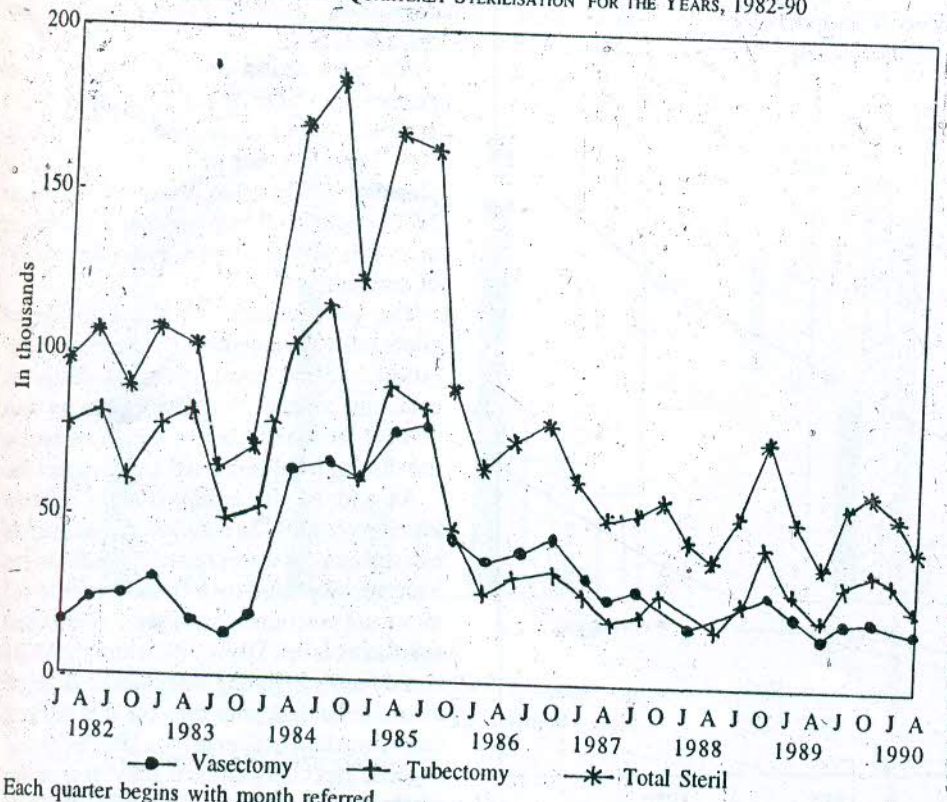
An attractive incentive package was provided to both clients and service providers. Clients as well as physicians received 25 taka per sterilisation, an amount equalling 325 taka (equivalent to US $ 9) at 1988-89 prices[5]. Because of this attractive service fee, both government and private doctors were eager to participate in the programme. Field workers and volunteers also received a fee for each referral. Pressure was put on field workers to recruit mandated number of IUD and sterilisation acceptors.

PRE-LIBERATION PHASE

Both sterilisation and IUD acceptance rose significantly during this period. Other methods did not expand. The exercise of strong administrative controls to elicit desired performance from workers, coupled with a system of attractive rewards played a prominent role in accelerating sterilisation as well as IUD trends. So did the broad-scale mobilisation of government resources, the flexible programme structure and the involvement of private physicians. However, this period is often criticised for the fact that on-the-spot cash incentives without provision for proper accountability led to substantial number of fabricated cases[6]. Muktadir and Huq (1972) have commented on this period as follows[4].

> The whole emphasis being on target achievements, it distracted the attention of the field workers from long-term retention efforts and intensification of educational efforts. This also tempted the workers to give, sometimes, spurious figures – the major criterion for measuring one's efficiency. The other mistake, probably the most controversial component of the programme, is the incentive money. In the initial phase of this crash programme, it served as a strong force inducing many of the hesitant clients to overlook many socio-cultural deterring factors and probably because of money incentive the enlistment of active participation of the majority doctors of the country, both private and government, was possible. But, the way cash money was floated in the field without provisions for checks and balances got the clients, field functionaries and professionals caught in a vicious cycle of corruption, weakening the very foundation of the programme. Further, as the motivation centred on incentive money,

FIGURE 2: NATIONAL QUARTERLY STERILISATION FOR THE YEARS, 1982-90



Each quarter begins with month referred.

Source: MIS, Data, MOHFW, Government of Bangladesh.

the need for sustained participation was hardly felt by the clients, thereby foiling the main programme objectives.

IV
Post-Liberation Dormancy and after

A period of disorganisation and suspension of activities adversely affected family planning during the period 1972-74. Development activities directed a recovering the losses sustained during the war of independence, received priority. Arguments within the government regarding the location of the family planning programme within the structure of the government bureaucracy further delayed resumption of vigorous programme activities. From the middle of the decade onwards, however, a new phase of programme development began.

A major decision was undertaken in this period to abandon the extra ministerial status of the programme and to locate it within the ministry of health, renamed ministry of health and family planning. As part of this structural change, functional integration was attempted by allocating family planning functions to existing field personnel, the field workers from the malaria eradication programme. The integration decision was unpopular among family planning personnel who felt they had lost autonomy and identity as a clearly demarcated vertical programme with strong political support. Malaria workers, on the other hand, lacked training, commitment and necessary supervision to implement the concept of functional integration. A decision was taken in 1975 to respond to these concerns by creating two divisions within the ministry, a health division, and a population and family planning division[1]. This decision re-established in some sense a 'vertical' family planning programme but maintained its location within the ministry. It coincided with the creation of a National Population Council chaired by the president of Bangaladesh, and the pronouncement of a population policy immediately thereafter, identifying population as the nation's number one problem.

The family planning division had to depend on the health division for the services of physicians for training and for provision of sterilisation operations. Physicians deputed from the health division provided clinical contraception services. Since physicians in government service are posted with the health department, a service fee was introduced to elicit their co-operation in family planning activities.

Concomitant with creation of two separate divisions, the ministry decided to recruit a separate cadre of field workers for family planning. The Chief Male Organisers (CMO) and part-time midwives (dais) were given an additional responsibility of distributing contraceptives at domiciliary level which was new to them as they had rarely administered condom and never the pill in the past. Full-time female field workers were recruited, at the rate of one per ward, i e, an administrative subunit of the union with an average population of approximately 6,000. At the union level a full-time male worker was posted to supervise the female workers and to conduct motivational activities as well. Recruitment was initiated in 1976, and completed in 1979.

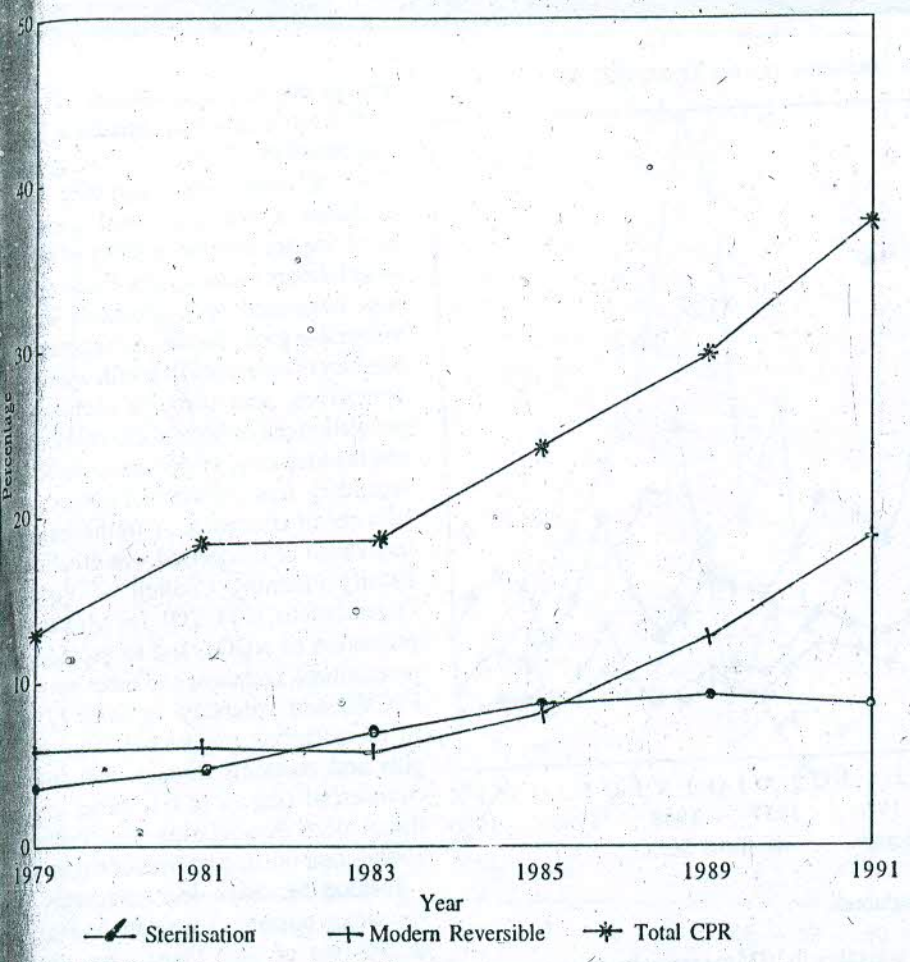
At this time family planning was also declared a multi-sectoral programme involving not only the ministry of health but other relevant social sectors. Family planning was integrated with mother's club and vulnerable group feeding programme of the ministry of social welfare with women's co-operatives, and through creation of a population cell in the ministry of information and broadcasting. Population education for secondary schools was introduced by the ministry of education. A further structural innovation of this period was creation of a Family Planning Council of Voluntary Organisations (EPCVO) for effective co-ordination of NGOs, and to provide them promotional, technical and other support to FPCVO and voluntary agencies [7]. The social marketing project began to provide pills and condoms through thousands of commercial outlets at this time, and the Bangladesh Association for Voluntary Sterilisation opened its first clinic in 1975.

Service facilities for tubectomy and vasectomy operations were made available in 290 (out of 347) thana (now upazila) health complexes (THC) at the subdistrict level in the course of the First Five-Year Plan. At the union level, below the thana, 1,068 FWCs were planned, but only 448 were completed. Recruitment of a cadre of male and female workers implied a considerable training task. Training was also necessary for physicians to assure adequate skills in surgical contraception. TBAs were also scheduled for training. By the end of the First Five-Year Plan seven training facilities were functioning, which could not cope with the training needs implied by field worker recruitment.

This period is characterised by the availability of a much broader choice of methods for clients. Sterilisation was no longer limited to vasectomy, but tubectomy began to be offered on a wider scale than had been previously. By late 1970s simpler technological innovation; minilaparotomy, substituted complicated procedures in tubectomy[8]. The Lippes Loop was still available, though not particularly popular; and oral pills were introduced for field distribution. Condoms continued to be available. The nominal price for condom and pill that had been fixed earlier was abandoned [1].

As a clear reaction against practices of the pre-Liberation period, the First Five-Year Plan of Bangladesh opposed cash incentives. However, a small compensation of taka 96 and taka 108 for vasectomies and tubectomies respectively were allowed for sterilisation as conveyance charges since 1976-77[9]. During a three-month long intensive sterilisation campaign, organised at the

FIGURE 3: CONTRACEPTIVE USERS BY METHOD, 1979-91



Source: CPS, Mitra and Associates, 1979-91.

beginning of 1977, each client was provided with a 'sari' or a 'lungi' in addition to travel reimbursement. The recruitment of 65,000 sterilisation cases in this period was viewed as a big success[10].

With gradual recovery of the national economy from the liberation war disruption, sterilisation began to show upward trend. The overall level of sterilisation acceptance, however, was nowhere near the pre-liberation levels. This is understandable. The First Five-Year Plan gave priority to development of new physical and organisational structure, i e, merging the programme into the ministry of health; developing the service facilities needed for the expanded emphasis on tubectomies, adding field-based distribution of pills, and above all the recruiting and training a large field staff.

With gradual development of physical infrastructure and human resources sterilisation began to increase during this period. This gradual rise occurred in the context of a simultaneous increase in field-based pill and condom distribution as a result of activities by newly recruited field-workers and NGOs, especially the social marketing project. Sterilisation however remained the major method of clinical contraception during this period despite reported deaths due to anesthesia overdose and scrotal infection [11], [12]. In case of reported death government policy of cash benefit of 5,000 taka which approximates a year's income of a small family was widely known throughout Bangladesh. IUD acceptance continued to suffer from problems with side-effects associated with the Lippes Loop.

V
Second Five-Year Plan Period

During this period the family planning programme underwent further development following the policy guidelines established in 1976. The service delivery network was expanded in terms of physical infrastructure and human resources. With expanded staffing, policy-makers began to recognise the need for establishing clear performance standards in order to motivate field workers to be regular and dedicated in their work. This was also the time when another attempt was made to integrate health and family planning activities in the field.

During this period, the National Population Council (NPC) was reconstituted with the president as the head of the council. The purpose of forming such a cabinet subcommittee was to locate responsibility for policy planning and inter-ministerial co-ordination at the highest level of government [13]. To ensure implementation of the council decisions an executive committee was formed with the minister for health and population as head, and the secretaries for external relations, finance, and member of the Planning Commission, as members, and secretary, population control ministry as member-secretary.

The government continued the policy of promoting NGOs during this period. NGO activities began to expand in rural areas. However, clearance of district level family planning officials was necessary before an NGO could establish itself in a particular area. This was intended to avoid duplication of services.

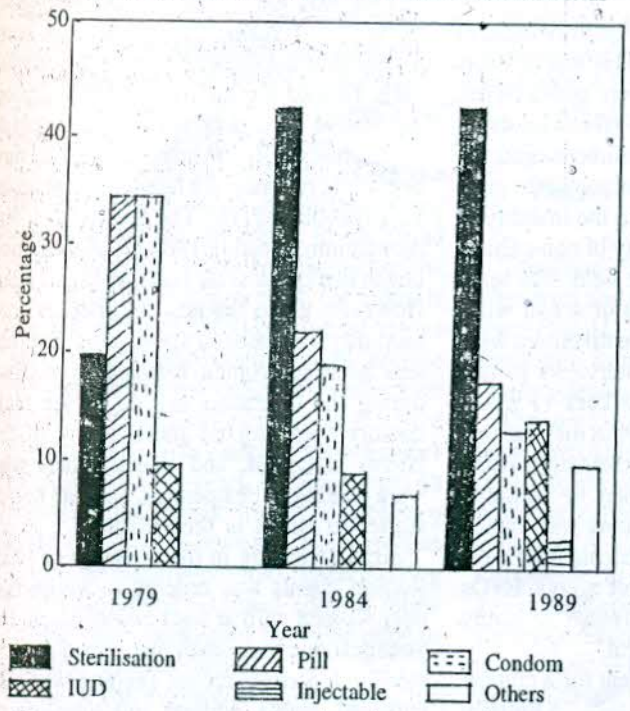
The government attempted to assure community involvement by creating population control committees at different echelons: district, subdistrict, union and village. However, these committees below the district level remained largely inactive.

As part of the administrative reforms introduced in 1982 a number of new districts and subdistricts were created. These changes were accompanied by a commitment to fill all vacant sanctioned posts at the district and subdistrict level. Deputy directors for MCH based family planning were posted in all 64 districts. Each deputy director was backed up by a medical officer to look after technical aspects, especially clinical activities, of the whole district and a medical officer to look after performance of clinical methods in the maternal and child welfare centre (MCWC) located in the district headquarters. At the subdistrict level a family planning officer and a medical officer were assigned to each subdistrict and vacant positions in the existing subdistricts were filled.

During this period the government opted once again to modify the relationship between the two wings of the ministry of health by mandating integration at subdistrict and field level. It was hoped that such integration would ensure effective clinical as well as domiciliary service delivery. At the subdistrict level (initially thana; later on upazila), the health administrator, a physician from the health cadre, who was previously responsible only for health activities, was assigned both health and family planning functions and renamed thana health and family planning officer (THFPO, later on UHFPO). He was made responsible to the deputy director (FP) at the district level in regard to family planning programme, but continued to report to the district civil surgeon for health activities. The thana family planning officer was placed under the THFPO to assist him with the implementation of the family planning programme. Under the leadership of the family planning officer, the health inspectors and assistant health inspectors were assigned to supervise the health and family planning programme.

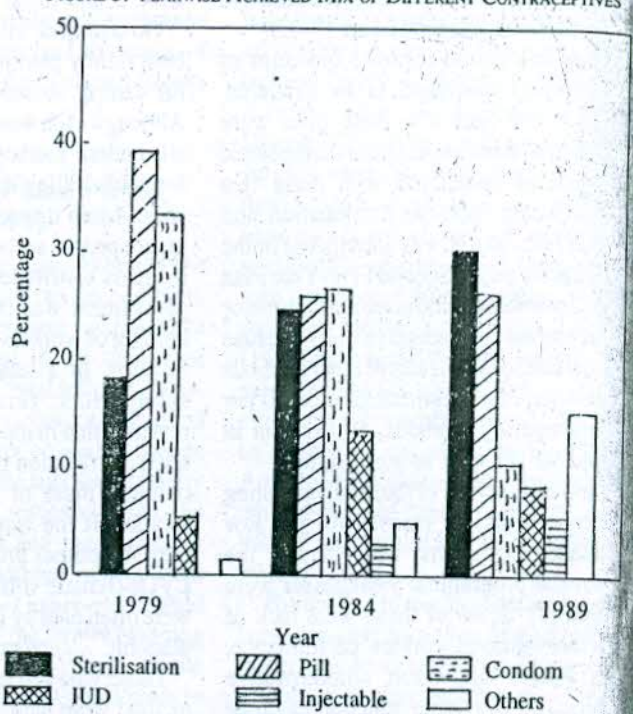
At the field level, a team approach was formulated with one female family welfare assistant (FWA) and two male health

FIGURE 4: YEARWISE PLANNED MIX OF DIFFERENT CONTRACEPTIVES



Source: TYP, SFYP, TFYP and Fourth FYP.

FIGURE 5: YEARWISE ACHIEVED MIX OF DIFFERENT CONTRACEPTIVES



Source: TYP, SFYP, TFYP and Fourth FYP.

assistants expected to work in health and family planning in each ward. This integrated effort, however, did not work because of the mismatch in the working patterns of health and family planning field staff regarding household visitation population coverage, work routine and service delivery. Besides, there was no real effort by health and family planning personnel to make the necessary compromise that could assure proper functioning of this approach. As a result, the team approach was abandoned. For the next couple of years integration existed in name only. Although integration was initiated in 1980, it was not fully implemented until early 1985. Thus, the severe adverse impact of the conflict generated by the integration policy manifested again in 1985.

In the early 1980s the government initiated a major move in the direction of administrative decentralisation which had major implications for the health and family planning programme at the subdistrict. All government functionaries were placed under the newly reorganised institution of local government, called upazilla parishad. The parishad was composed of the elected chairmen of union councils, government representatives of various programmes at the subdistrict level, and women's representatives. The chairman of the upazila parishad was elected by the people of the subdistrict. Health and family planning was placed under the control of this new institution, and the MOHFP and later to MOHFW decided that the UHFPO should represent health and family planning in the parishad. He attended regular meetings of the parishad, provided reports on health and family planning, initiated programme development proposals and received money for both health and family planning through upazilla parishad. The fact that, the family planning officer had no role in the upazila parishad was seen by family planning officials as continued evidence of their underprivileged position and the lack of emphasis on family planning.

During 1985, in an attempt to implement the policy integration, the government further strengthened the UHFPO's role over the family planning officer, while at the same time reducing the power of the deputy director (FP). Responsibility to write the annual credential report and to approve leave of the FPO was taken away from the DD and assigned to the UHFPO. Regarding family planning matters the DD had to communicate to the UHFPO instead of directly to the FPO and vice versa.

These structural changes caused considerable frustration and turbulence in the family planning wing. In 1980, family planning staff at the subdistrict level felt slighted by being placed under the administrative control of a relatively junior physician from the health wing. They reacted with a two-month informal work stoppage. Again, in 1985 when control of the health side was strengthened by increasing the role of the UHFPO, the family planning staff felt demoralised and angry. Subdistrict family planning officials, most of whom had worked in the same position for the last 20 years, could not accept the comparatively younger physicians as their administrative supervisors. Moreover, they argued, health workers would have to also provide family planning services as prescribed in their job responsibilities, if integration were to be truly accomplished. Health personnel, when in-charge of health and family activities, they argued, never took interest in the field-based family planning programme, and physicians were only involved with the sterilisation programme and in a minor sense with MCH services. Moreover, if integration existed, the clinicians should not be paid any incentive fee for their service during operation as that should have been the part of their job responsibility. The family planning officials do not receive any incentive for managing the sterilisation programme.

The Family Planning Staff Association opposed the shift in authority to the health side and initiated an informal slow-down of family planning work, particularly in regard to sterilisation as physicians were actively associated in promoting this method. The association demanded not only structural separation, but also a significant role in the upazila parishad.

During this period service facilities for tubectomy and vasectomy operations were created for an additional 90 upazila health complexes. In addition 20 mobile sterilisation teams provided services to those outreach areas where physical infrastructure did not develop in time. These facilities were provided with the assistance of the health wing which was responsible for providing institutional health facilities in upazila health complexes or hospitals. At the NGO level, BAVS established 32 clinics for sterilisation services while other NGOs had about 63 clinics/hospitals. On the other hands, the social marketing project (SMP) distributed pills and condoms through its 99,000 outlets [14]. This was the period when horizontal expansion of physical facilities continued to develop at the upazila level and most of the upazila

health complexes had the capacity of sterilisation performance. Simultaneously, increase of IUD acceptance was facilitated through the rapid expansion of union level health and family welfare centres (H and FWC).

During this period a broad spectrum of contraceptives continued to be available. Copper-T 200 and low dose pills were introduced with the expectation that reduced complications associated with these two methods would increase continuation and retention rates. But it was anticipated in the plan that at the end of Second Five-Year Plan period sterilisation would constitute the major share of current contraceptive users because of the low continuation rates of other methods (continuation rate is estimated to be 50 per cent in temporary methods, 60 per cent in IUD and 90 per cent in sterilisation).

In a mid-term review of the family planning programme to assess reasons for the low performance in the first two years of the plan, several programme weaknesses were identified [7]. Some of these were lack of criteria for evaluating workers' performance, lack of worker motivation, administrative weaknesses in providing sanctions against them, weak supplies and logistics systems and inadequate utilisation of existing health and family planning facilities. As a result of this review, a two-year action programme, popularly called the crash programme, was launched at the end 1982, introducing several tools to improve efficiency, motivation and performance of workers at various levels.

Districts and subdistricts were allocated methodwise population-based targets and a fixed monthly quota for all methods was introduced to measure performance. Although quotas for all methods were introduced, the absence of consistent supervision and a worker-oriented record keeping system made it virtually impossible to verify performance of temporary methods. This management weakness consequently forced government to put more emphasis on fulfilment of targets for clinical methods, because record keeping for these methods occurred at the clinic level and was relatively accurate. All NGOs involved in service delivery were also provided with a worker-based quota for all modern methods. The NGOs which had their own clinics were given a fixed monthly target per clinic.

Rewards and sanctions at various tiers were also introduced to motivate better performance. Community awards to union and upazilas, and worker awards were announced for outstanding performance. Inability to adequately measure performance, however, made it impossible to implement these. Doctors who demonstrated good performance in clinical methods were given preference in assignment to various missions or delegations inside or outside the country. Programme managers of family planning at the subdistrict level received a letter of satisfaction/thanks from the secretary of health if sterilisation and IUD performance were found to be good.

Government introduced punishement of both family planning workers and officials for failing to achieve their quota/target. Although each worker was given a quota for all modern methods, punishment occurred for not fulfilling the clinical methods quota only. Again this was due to the inability to assure proper accountability of non-clinical methods distributed in the field. The main punishment was the threat or actual withholding of workers' salary until quotas were fulfilled. In a series of interviews in two subdistricts, female workers (FWAs) revealed that in the early 1980s they emphasised sterilisation because their supervisors rebuked them or threatened to withhold salaries. If the worker's quota was unmet, they sometimes procured clients from dais/LVOs (female volunteers) or agents. LVOs were often paid by FWAs to motivate family planning acceptors for them.

Those who referred a client for a clinical method were paid a fee of taka 15 initially to meet the transportation costs involved. Later this fee was increased to taka 35 to cover the education and motivational aspects of the referrer's work. The female local voluntary organisers (LVO), primarily selected from dais, who had been working on a part-time basis in the family planning programme since the mid-1960s, were no longer paid a monthly stipend. Instead they were encouraged to work on a piece rate basis in the hope of increasing their performance. A higher referral fee was introduced for them than for government workers or their public counterparts. The referral fee for LVOs was raised twice during this period. The referral fee for workers was also raised from taka 10 to taka 15. It was again raised to taka 45 to equal that of the LVOs but the transport and per diem allowance the workers used to receive was stopped. Close relatives of clients, dais and other agents received initially a fee less than a LVO but higher than a worker, but later on received the same amount as LVOs and workers. During this period, the service fee to clinicians, was raised from taka 15 to 20. Referral and service fees were also provided to NGO workers and physicians.

Government also increased the compensation paid to clients, meant to cover wage loss, transportation and food cost, from taka 108 and 96 for tubectomy and vasectomy clients respectively to taka 175 for both in late 1983. This was intended to meet inflation.[1] Better quality of clothes were also provided (lungi within 50 taka range and sari within 100 taka range). NGOs who facilitated sterilisation and IUD services, were provided with wage loss, transport cost, food charges, clothes, etc, as admissible; for the services logistics were supplied free of cost on the basis of their performance [7].

This was the period when contingency money and follow up medicines were available at the subdistricts to ensure quality care. During the later part of this period, qualitative aspects of sterilisation began to be emphasised. It was mandated that the new anesthetic regimen[2] for tubectomy clients be strictly followed [15]. The new regimen was though introduced in 1982, implementation began in a larger scale two-three years later. However, while the new regimen reduced mortality it introduced a psychological problem because women remained conscious during the operation and could see male doctors operating on them. Many of the clients screamed, and scared others who were waiting to be operated, and told horror stories to others in the village.

Strict screening in the selection of sterilisation clients was ordered to assure that only women with at least two children, the youngest one more than one year old, were sterilised. Stricter record keeping was also enforced. Name, address and signature of referrers other than paid workers were kept in a separate register, along with the client's name, date of sterilisation, etc. Unapproved additional incentives like foodgrain supply to the clients to induce them to undertake sterilisation were discourged.

Determinants of Sterilisation Performance

The second FYP was obviously a period during which the programme reaped the benefits of previous and ongoing strong efforts in the development of physical facilities, staffing, and training. These factors undoubtedly account to some extent for the rising trend of sterilisation acceptors until 1984. Policy-makers realised that physical infrastructure and staff alone do not suffice to create an effective programme. They recognised the need for a focus on staff motivation and accountability. The considerable rise in sterilisation acceptors during the first four years of the SFYP is certainly in some sense attributable to the range of measures introduced that establish standards against which worker performance could be assessed, as well as rewards and sanctions to differentiate between high and low performers.

The SFYP was furthermore a time when issues of quality of care began to be raised. A special concern was the unusually high mortality levels associated with sterilisation, and the altered anesthesia regimen must be seen as an effort to improve the technical quality of care. However, these improvements on the technical side appear to have been associated with counter-effects in terms of the interpersonal quality of care. It appears

that the patient's consciousness during surgery evoked such fear as to discourage other patients from accepting tubectomy. There is furthermore a possibility that despite efforts to improve the technical quality of care, inadequacies in this area remained, producing frightening side-effects for the patient later on which in turn produced unwillingness among others to go ahead with operations. Moreover, the larger the pool of sterilisation acceptors, the larger is the pool of people who can spread stories about their dissatisfactions with service delivery. Stricter record keeping and stricter screening of sterilisation cases may also have contributed towards a decline in the number of operations. It appears, however, from an audit report that there is virtually no difference in the rate of fictitious cases but there was an increase in the proportion of clients having USAID-approved informed consent forms signed/thumb impressed by them prior to and after this instruction.

One of the major constraints during the SFYP was the integration issue. Despite various shifts back and forth, the issue of where and how family planning fits into the ministry of health remains unresolved. The developments that occurred during this period tended to leave family planning staff in an increasing state of frustration. Officials who at the beginning of their career could function with a fair degree of autonomy in their position were faced with a situation where almost 20 years later they had not had much opportunity for promotion, but were instead placed under the administrative control of their juniors from the health wing. Moreover, there was no place for them in the newly created institution of local government, the upazilla parishad. Channelled through the family planning association, an informal pressure group that has represented the position of the family planning wing over the decade, this frustration undoubtedly had a major impact on the rate of sterilisation acceptors. The informal work stoppage was clearly focused on sterilisation.

It might be argued that the integration issue is unlikely to explain much of the turbulence in acceptance rates beginning in 1985 since both NGO and government clinics were affected. However, if clients motivated by government workers are sometimes taken away by NGO agents then it could be that the work stoppage by government workers could lower performance in both sectors.

Finally method substitution should be considered as possible explanation for the decline in sterilisation. The Copper-T (CuT became available in the 1980s, giving intrauterine contraceptive devices a new lease on life. With increased clinical capacities CuTs have become a real alternative to sterilisation in the SFYP. IUD acceptance did not decline at the end of the SFYP, as sterilisation did. Despite emphasis on clinical methods, non-clinical methods also showed an increasing performance and promotion of injectable at the union level started to take place gradually.

VI
Third Five-Year Plan Period (1985-90)

The Third Five-Year Plan reiterated the objectives and policies of the Second Five-Year Plan [17]. Government continued to emphasise improvement in the quality of family planning services and follow up care.

The organisational structure remained unchanged with the exception of a key change related to integration. The subdistrict family planning officer was removed from the control of the UHFPO and made directly responsible to the chairman of the local government council. This has re-established some of the authority of the family planning wing, because the two key officials at the subdistrict level related on an equal basis to the upazila parishad.[3] It has appeased some of the concerns of family planning wing in the long-standing conflicts over the integration issue. Another development was the decision to recruit additional 10,000 female family planning workers at the government level in order to improve worker to population ratios thereby assuring higher frequency of contact for purposes of education and service delivery.

The target set by the Third Five-Year Plan for sterilisation was one-third lower than that of the Second Five-Year Plan. TFYP target was to perform 2,323 thousand sterilisations. Proportion of sterilisation in planned method-mix was considerably reduced (Figure 4). Consequently, district and upazila targets were also reduced. Targets were also reduced for NGOs.

The reduction in sterilisation targets has eased up pressure on the subdistrict family planning officer. He is required to achieve at least 50 per cent of the target, otherwise he has to face disciplinary measures. Performance standards have also been reduced for workers. The government relaxed worker's monthly fixed quota both at GoB and NGO level in mid-1987. Instead of fixed targets by method a quota of couple year protection (CYP) was given to the field workers by many upazila officers by which a worker could substitute one method for another. For example, if FWAs cannot meet their monthly sterilisation quota they can substitute other methods using a formula provided by the family planning officer. However, fixed targets have since been reinstated. But more recently the emphasis has been on contraceptive prevalence rate rather than on methodwise targets.

Moreover, doctors (MO-MCH) who received special training on sterilisation during 1983-87 period were mos transferred out either in the health wing non-related positions. There was not m training thereafter, resulting in a shortage trained doctors in sterilisation techniq During 1988-90 there was no training for surgical team (nurse/technician). Old ste lisation equipment were not replaced a very poorly maintained. A recent study sterilisation clients noted inadequacies care during and after operation and also facilities, medicine and surgical equipme [16]. Since mid-1987 the referral fee an salary of BAVS agents and service fee o clinicians were withdrawn. BAVS also ha to close nine out of its 34 field clinics i August-September of 1987 for irregularitie and shortage of fund. It again closed dow half of its remaining clinics in Septembe 1990.

The decline in sterilisation acceptance wa caused mainly by reduced target, conflict o integration issue at the initial stage, shortage of trained doctors, and low performance by BAVS due to closure of its clinics and with drawal of referral fees from the programme. Cleland and Mauldin in their 'financia payments' study [9] suggest that although based on past trends raise in client payments and continuation of referral fees may result appreciable increase in performance, but in long run, incentive based sterilisation programme would seriously hamper wider prospects of family planning in Bangladesh.

Wider availability of information about the range of contraceptives available has led to greater demand for methods other than sterilisation (Figure 5). Availability of wide variety of methods and regular distribution at door step or in the vicinity of the client's home have provided opportunity for substitution. In two MCH-FP Extension Project upazilas where workers' regular household visitation and advocacy of a wide variety of methods are given importance, few new sterilisation cases appear while other methods, especially, injectable contraceptive, have sharply increased in these areas.

VII
Conclusion

The government's ability and determination to promote family planning services largely depends on its political will as well as the types of policies and programmes it carries out. During the mid-1960s extensive organisational development primarily aiming at clinical methods occurred. In a flexible programme structure, strong administrative control on workers to achieve desired performance together with a system of attractive rewards played a key role in accelerating vasectomy as well as IUD trends. Introduction of vasectomy during the mid-1960s as a method of contraceptive and within four years of its expansion was more

pronounced than any other method. It even surpassed the performance of the IUD, initially the most popular method of that period. The annual performance of vasectomy increased by 63-fold from 1966 to 1970.

With the liberation war in 1971, the activities of the family planning programmes were disrupted until 1974 when the organisation of family planning was rebuilt. The annual performance of sterilisation rose from barely 1,500 in FY 1974 to about 50,000 in FY 1976. Following a short sterilisation campaign a further rise was observed in the next year.

The First Five-Year Plan (1973-78) which was effective from 1974 provided scope to develop physical infrastructure and human resources to provide family planning as well as sterilisation services in outreach areas. A large number of full-time female workers recruited during this period coupled with the introduction of tubectomy at a subdistrict level assisted in raising performance of sterilisation. Policies to facilitate delivery of family planning services introduced by urban-based NGOs also made headway. The Second Five-Year Plan (1980-85) was period when two-thirds of total sterilisation performance of last 22 years occurred. Gradually increases in sterilisation from the beginning of this period reached all time high in FY 1984 and then began to decline afterwards. This falling trend has continued through the Third Five-Year Plan.

The upwards trend in sterilisation was due to the gradual expansion of physical facilities, human resources, both in the government and non-government sectors. However, sterilisation was given highest priority as the second plan target was elevated to an ambitious level of 40 per cent of all methods. The sharp rise in FY 1984 was further influenced by the recognition of a need for motivation of workers by the government. Increases in referral and service fees, strict enforcement of clinical quotas, and rewards and sanctions were used to motivate workers and to make them accountable to the authority.

The post-1984 decline in sterilisation could be attributed to unintended consequences of the government's concern regarding quality of care and integration of health and family planning at subdistrict and field. Introduction of a new regimen to reduce mortality resulted in panic among clients as they remained conscious during operation. In an attempt to integrate health and family planning programmes strengthening the power of physicians from the health wing caused turbulence in the family planning side which appears to be one of the major causes of decline. In the BAVS programme (which account for 60 per cent of operations performed by NGOs) follow-up care probably suffered when transportation payments were ended. This may have led to more complaints about side effects and worse publicity for the operations.

During 1986 and 1987 the target set for sterilisation was much reduced from the earlier period. The abortion of fixed workers quotas as motivating tool and in NGO sector, abolition of workers referral and service fees have further reduced sterilisation performance. Demand factors, such as saturation of the market, and the availability of alternative, reversible methods of contraception may have contributed to the steady decline in the number of sterilisation performed in Bangladesh. But as this paper has shown, 'supply-side' factors – changes in policy emphasis, incentives, resources and training, also had a major impact. If the national family planning programme is to offer safe choice among a full range of methods, then sterilisation performance could be improved during the Fourth Plan period by attending to these supply-side factors.

Notes

[The MCH-FP Extension Project (Rural) is a collaborative effort of the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) and the Ministry of Health and Family Welfare (MOHFW) of the Government of the People's Republic of Bangladesh, supported by the Population Council. Its purpose is to improve the delivery of maternal and child health and family planning services through the MOHFW programme. This publication is funded by the United States Agency for International Development (USAID) under the Co-operative Agreement No 388-0071-A-00-3016-00 with the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). The ICDDR,B is supported by the aid agencies of the governments of Australia, Bangladesh, Belgium, Canada, China, Denmark, Germany, Japan, the Netherlands, Norway, Republic of Korea, Saudi Arabia, Sri Lanka, Sweden, Switzerland, Thailand, the UK, and the US; international organisations including Arab Gulf Fund, Asian Development Bank, European Union, the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), and the World Health Organisation (WHO); private foundations including the Aga Khan Foundation, Child Health Foundation, Ford Foundation, Population Council, Rockefeller Foundation and the Sasakawa Foundation; and private organisations including American Express Bank, Bayer AG, CARE, Family Health International, Helen Keller International, the Johns Hopkins University, Macro International, New England Medical Centre, Procter Gamble, RAND Corporation, SANDOZ, Swiss Red Cross, the University of Alabama at Birmingham, the University of Iowa, and others.]

1 The estimated rural consumer price index comes in 1983 to 220 taka if the year 1976 is considered base year (Cleland and Mauldin, 1991). During 1988-89 it is calculated to be more than 325 taka.

2 Under the new regimen for analgesia greater attention is paid to the technique of local block anaesthesia. As a result, the client remains conscious and she can see what is being done with her during the minilaparotomy operation. Through this regimen there is less possibility of respiratory or cardiac arrest. In contrast, under the old regimen the patient used to be either sleepy or unconscious and could not understand what was being done. But on occasions patient died due to respiratory or cardiac arrest. A surveillance report indicated that a third of the reported operative mortality was due to overdose of analgesic agents combined with failure to monitor vital signs.

3 Upazila parishads were dissolved by the new democratic government in 1992. As of this writing no system of local government has been created to replace the parishads.

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