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The Social Context of the Family Planning Programme: Evidence of 1990s Survey Data from Uttar Pradesh

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Dr. Rajiv Balakrishnan**

In its initial phase, the family planning programme's overweening emphasis was on the promotion of sterilisation as a contraceptive method. Public revulsion in the wake of the programme's coercive thrust during the Emergency however meant a much-diminished official enthusiasm for family planning, which had become a 'political pariah'. Programmatic emphasis was subsequently geared to birth spacing, for which the major part of unmet need was especially 'fragile'. One outcome, micro data from Uttar Pradesh suggest, was that health workers, under pressure to meet targets for temporary methods, sought to crystallise acceptance via the provider-client interface, with the result that the most susceptible unmet need for reversible methods seems to have been substantially mopped up. It appears also to have been bunched up at the end of the reproductive span, where the demand was for reversible methods to avert rather than space. The finality of a permanent method and the dread of child death are likely to have been a substantial source of demand for reversible contraceptives to avert until such time as the client was confident enough of child survival to go in for a permanent method. It is possible also that providers, under pressure to promote reversible methods and faced with the fragility of demand for them, not only tried to crystallise the susceptible unmet need to space, but also sought to 'sell' reversible contraceptives as an alternative to permanent methods. Whatever the interpretation, the policy to promote reversible methods, it appears, has had a curious consequence.

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In the 1950s, the Indian government and the Rockefeller Foundati sponsored a now well known birth control programme in Ludhiana distri Punjab. It came to be known as the 'Khanna Study', so named after t market town of Khanna, where the programme had its field headquarte A brainchild of the Harvard School of Public Health, the programme w a dismal failure; birth rates fell in the test area but also in the cont villages. The birth rate decline was explained by the directors of t programme themselves in terms of a rise in the age of marriage and n programme effort (Mamdani 1973: 24-25, 28). Based on his fieldwork Manupur, one of the villages of the birth control programme, Mamda (1973) argues that the villagers were in fact quite rational in choosing have large families. He shows how, at a low level of technology, hir labour was uneconomical and family labour vital to the economic viabil of farm households. Crop sharing by households which contracted harvest a piece of land also provided a rationale for many children in t family, as did the seasonal shortages of wage labour in the low technolo agriculture of Manupur at the time of harvest, weeding and sowing, typically labour intensive activities (Mamdani 1993: 76-77, 94-95). N just family labour, but the labour of children was important. Children we engaged in a range of tedious tasks; more particularly, they grazed a cared for cattle, and collected animal waste for manure (Mamdani 199 99, 100, 131). Offspring were a source of security for aged parents, a of help in emergencies like monsoon floods. They helped diversify fam income; many families in Manupur had educated one son for this reaso Finally, children contributed to the family's strength of numbers; th provided security in disputes over land encroachment by neighbouri cultivators, and to farm-labourer families from 'punishment' by the farm and were a source of strength in factional fights (Mamdani 1993: 4 132-134, 136-37). This strength of numbers as a rationale for large famil can be discerned also in other studies of village India; numeric preponderance, a characteristic of Srinivas's concept of 'dominant cas (Srinivas 1959), is important in village politics, and the '...importance numbers in the village political system is readily perceived by the peo themselves' (Srinivas and Ramaswamy 1977).

A decade after the Khanna study, the new agricultural technology of t 'green revolution' had swept through the area. With multiple croppi and an increase in the use of fallow land, land for the grazing of cattle h

disappeared. This had its impact on the 'age old custom' of cattle grazing by boys and the collection of cow dung by children. Moreover, the role of children in deweeding had declined due to the use of chemical weed killers. The demand for child labour went down also due to the shift away from labour intensive crops like cotton, maize and vegetables in the seventies in favour of rice cultivation (Nag and Kak 1984: 670, 673). School enrolment increased in the area and children were in school six hours a day, but while the workload of children declined overall, they still did 'plenty of work' in their households. Though grazing grounds had disappeared, many households owned cattle, and tending them was the prime responsibility of children. Children gathered fodder in the field and converted it into cattle feed with the use chaff cutters. They helped their parents milk and wash cattle. On holidays, Jat boys would work 7-8 hours helping their parents in the field. Children of the poor castes spent hours collecting firewood and transporting it over long distances, and girls of all castes helped their mothers in the preparation of food, washing of clothes, cleaning of utensils, carrying water from the pump or well, and making cow dung cakes for use as fuel. They also cared for siblings, as did boys, and spent a lot of time making colourful mats that were sold or used as dowries (Nag and Kak 1984: 669-670, 676).

Children in Manupur were still valued as old age security and risk insurance, though not to the extent they had been earlier. The growth of institutional sources of credit was one of the factors of change. Also, the bargaining power of agricultural labour had increased, and with it, their job security. Job security increased also with the increase of workers in non-agricultural occupations in the industrial, commercial and government sectors. As for the use of force to settle disputes, it had declined; caste conflicts still occurred, but the *panchayats* and police were more relied upon to resolve them. Diversification of income still continued to be a motive for having children, as was reported earlier by Mamdani (Mamdani 1973: 44); Jat parents wanted at least one child to have a white collar job to reduce dependence on agriculture (Nag and Kak 1984: 671, 674, 676). Overall, children were still a valued resource despite the shift towards labour-saving technology in agriculture.

In a more recent, anthropological study of another north Indian village (village Mogra), Patel (1994) documents how, where there is little mechanisation, children contribute significantly to the household economy.

After they reach the age of 10, children graze cattle and take them to the village pond for watering; they collect dung, twigs and firewood, and fetch water from the pond or well. 10-12 year old girls cook the evening meal, especially in the peak agricultural season, and milk, feed and tether cows. They do light tasks in the field like de-weeding. Young children with slingshots are engaged in scaring birds away from the fields; this is a time consuming task, for which hired labour is uneconomical. Boys take up male tasks by the time they are 15-16 years old. 12 year old girls have learnt how to remove stones from grain, grind grain in a hand mill, clean the cattle shed, and make dung cakes. They are encouraged also to acquire skills such as embroidery, bead work, cloth repair the use of rags to make beds and to learn how to make stands for water pitchers. They help in house repair, and smear the walls and ground with dung paste. By the time a girl is ten years old, she has learnt all the female tasks. Children also learn traditional crafts like tailoring, carpentry, smithy and pottery. 6-7 year olds help their parents in numerous chores in the cattle shed and field and in the care of siblings. 5-10 year olds are involved in tasks like baby-sitting and running errands, which frees the household's elders for more productive work (Patel 1994: 38-45). Children can also be an investment in the diversification of income sources (Patel 1994: 96). In sum, offspring are needed to sustain the household's resource base, provide it protection, contribute to its division of labour and its social networks, and relieve the elderly of their burdens. A household not blessed with children is reduced to a pitiful state and barrenness is a dreaded curse (Patel 1994: 78-84, 89, 98-103, 154-55).

The value of children can be seen also in a cross cultural perspective. In China, resistance to the vigorously pursued 1970s family planning policy had been quite extreme, and the effort to restrict births far from universally successful, especially in rural areas. As per to the system of leasing out land to farmers in rural areas, families were assigned land in proportion to their size. Family labour was important, hence the view that there are 'three benefits from a son's marrying early: the daughter-in-law, the grandchildren, and the land' (Attane 2002).

Contraceptive Use

The optimal number of children, after taking into account anticipated losses to child mortality, is, Patel argues in her study of village Mogra,

high on the family's agenda (Patel 1994). Delay in the fulfilment of this demographic imperative can be expected to impinge adversely on a household's welfare; hence the demand for spacing should be feeble. Yet, to some extent, birth spacing is rooted in tradition. Thus, breast feeding, which renders the mother temporarily sterile, is sustained by the belief, underscored by ethnographic data, that mother's milk is vital for the well being of the nursing child. The contraceptive effect of breast feeding too is well understood, so that a mother grieving over the death of an infant is encouraged to put her previous child to suckle as she might otherwise conceive too soon. In fact, there are social norms to regulate the interval between the consummation of marriage and first birth, as also, the average birth interval for mothers who have given birth to a child (Patel 1994: 172-175). As Srinivas & Ramaswamy (1977: 11) note: 'The woman who postpones having children, especially when she has had no sons, will as surely be the object of criticism as the one who conceives in quick succession ignoring post-partum taboos or continues to have children when grandchildren have started arriving'. Custom and tradition can be expected to favour spacing only up to a point, however. A woman's status goes up as she fulfils her childbearing commitments to the household (Patel 1994, Srinivas & Ramaswamy 1977: 10, 13); at some stage, her own ambivalence, or counter pressure from the family's decision makers are liable to render the 'need' for spacing 'fragile', so that the wish to space births tends not to equate with contraceptive use.

As for the demand for permanent contraception, it is a somewhat different kettle of fish, for it tends not to crystallise until the socially optimum number of children, so crucial to the welfare of the household and the status of the mother, have already been born. Once that demographic goal has been accomplished, ethnographic evidence attests, a mother has also acquired the decision-making clout to put an end to her fertility. Patel (1994), citing ground realities from village Mogra in Rajasthan, reports that the demand for permanent contraception is fuelled by changes in a woman's status as she gets on in years; by the time she has had the 'socially optimal' number of children and wishes to recuperate from repeat pregnancies, she is likely to have also attained a position of seniority and assertiveness in the household. She becomes ill disposed towards pregnancy also because, given the managerial responsibilities that go with authority, she frowns on the labour foregone as a result of the need for post partum

rest as also the additional expenses the household will have to incur on nourishment for the post parturient woman. Even before her children number a 'social optimum', the mother, exhausted by repeat pregnancies, may wish to put and end to her fertility and hence chaff against the desire of her mother-in-law and husband that she have another child; consequently, her 'unmet' need for permanent contraception is on 'hold' (Patel 1994: 86, 168-171, 208). The mother's status and the welfare of her family depend critically on an optimal number of offspring, but at some stage, the family crosses the threshold of optimal size, hence, the demand for permanent contraceptive methods should be both pervasive as well as 'robust'. Within this overarching context, the 'optimal' number of children is liable to vary due to social-class differentials in child mortality. Overall, 'optimal' family size in Uttar Pradesh translates into more rather than less; NFHS data from U.P. show that the use of permanent contraceptive methods rises with the number of living children, and, more particularly, the number of living sons, while, at the same time, factors like exposure to education are also important (Radha Devi, Rastogi and Retherford 1996: 12-15).

'Fragility' & 'Robustness'

Data on the contraceptive profile of women in the reproductive ages in Uttar Pradesh, a State with one of the highest TFRs (Total Fertility Rates) in the country, are cited here to provide an empirical grounding to issues in this area. The data, from the NFHS (National Family Health Survey) of 1992-93, show a vast unmet need for contraceptive methods to both limit births as well as prolong the interval between one birth and the next. Its extensiveness was one striking feature of this unmet need, extending to 30% of currently married women of reproductive age; another was that while over half of this unmet need was the unmet need to space, as much as 89% of the total need for birth spacing was unmet as against a mere 43% of the need to limit (Radha Devi, Rastogi and Retherford 1996: 1).[1] Social factors acting to both impede spacing and make for a far more

1 Couples who are unsure of whether they would like to have another child are deemed to have an unmet need for spacing as per NFHS definitions (Radha Devi, Rastogi & Retherford 1996: 3). These women would be less prone to 'fragility' as far as reversible methods are concerned. Despite this, the testimony of the NFHS is that the unmet need for spacing is marked by considerable 'fragility'.

extensive acceptance of permanent contraceptives are likely to have been at work. Of the respondents (all women) wanting to space their next birth, as many as 74% said they did *not* intend to use a contraceptive method to either delay or avoid pregnancy at any time in the future. 62% of these respondents indicated 'want more children' in response to the question of why they did not intend to use contraceptives. It appears from this that the urgency of augmenting family size was an overriding concern. Of the respondents wanting to space their next birth, the 26% who said they *did* plan to go in for family planning are an ambiguous category in that the data do not permit one to distinguish between the would-be future users of permanent contraception from those who meant to use contraception for the prolongation of the birth interval. Thus, of the women with an unmet need for spacing, at least 74% (and maybe more) did not intend to match need with use. Women with an unmet need for limiting, on the other hand, were more likely to contracept - only a relatively small 54% said they did not intend to use contraceptives. That figure, moreover, is an overestimate; 46% of the respondents with an unmet need for limiting, when questioned on why they did not intend to use contraceptives, responded with 'intend to use in future but not now' (Radha Devi, Rastogi and Retherford 1996: 20, 22, 24).

If women with unmet need are not contracepting, it is likely to be significantly due to perceived bottlenecks in the delivery of quality care; the need for contraceptives can be 'fragile' not only due to family counter pressures, but also, on account of deficiencies of the supply side, such as accessibility of services and rapport with provider. These too are key determinants of contraceptive acceptance and use, as is underscored by the much written about ICDDR project in Matlab *thana*, Bangladesh. It is argued, in this context, that demand is a necessary but not sufficient condition; and that supply side strategies like client oriented culturally appropriate services, supervisory and peer support to staff, mechanisms to enforce provider accountability, and links with village leaders were critical to the supply side strategy (Phillips, Simmons, Koenig and Chakraborty 1988: 324-326). It is noteworthy also that there is disagreement as to the context in which supply side factors were at work. Thus, Caldwell *et al.* (1999) critique an influential World Bank study in which fertility decline in Bangladesh, profiled as a poor country where the status of women is low and significant socio-economic change has not occurred, is attributed to

efficient national family planning programmes. The authors argue significant socio-economic change did in fact occur in Bangladesh still, family planning programmes were important in helping couples fewer children.

Family Planning Programme

In 1970, shortly after the Indian family planning programme commer the proportion of sterilised couples stood at 6.3%. This compares corresponding figures of 0.7% and 3% for the intra uterine device other temporary methods respectively. By 1980, as many as 22.4 eligible couples were sterilised, with the corresponding figures for intra uterine device and other temporary methods at just 0.5% and 5 (Khan and Prasad 1985: 318). Thus, not only was sterilisation the widely used method; it also accounted for the lion's share of the grow 'couple protection' over the decade. Subsequently, the pre-eminenc sterilisation waned and targets for temporary contraception were stre (Srinivasan 1995: 142; Visaria & Chari 1998: 63-64). Two distinct ph of the family planning programme can thus be identified - the first, w it latched on to the latent demand for sterilisation, and the second, w it gave importance to the promotion of reversible methods.

The change of orientation is likely to have had roots in public aversic the programme's coercive thrust in the Emergency, in the wake of w came a much diminished official enthusiasm for 'family planning', sterilisation, which had become a 'political pariah' (Gwatkin 1979). Fa of the horror let loose are described by Tarlo (1995), who tells of w happened when government largesse in the shape of housing allotm for the weaker sections was made conditional to the provision of sterilisa certificates. 'Movitators' adopted less then scrupulous methods to en their targets were fulfilled and prized sterilisation certificates obtai Vasectomy, the method that enjoyed pride of place during the Emerge (it accounted for 6.20 million of the 8.25 million sterilisations carried in 1976-77), faded into obscurity thereafter (Gwatkin 1979: 48-50, The number of tubectomies did grow steadily, but it seems establishment had been fighting shy of tubectomy too, and not vasectomy (Srinivasan 1995: 138). The State, after all, had burn fingers trying to meddle with family size. While annual sterilisation tar stagnated at 5.5 to 6 million between 1983-84 and 1990-91, target

IUD insertions and the pill increased manifold. By 1990, the target for IUD insertions was roughly equal to that for sterilisation. Since 1980, in fact, there had been a 'well-planned strategy ... to de-emphasise sterilisation and increase targets on the spacing methods'. At the root of this change of orientation was ' ... the realisation at all levels - political, bureaucratic and academic, that further reductions in Indian fertility can be expected only by promoting the use of spacing methods among younger couples of lower parity' (Srinivasan 1995: 140, 142).

Targeting Pressures

Were pressures on staff to meet sterilisation targets were relatively subdued in the wake of the new policy thrust? In their review of studies of the Indian family planning programme, Koenig, Foo and Joshi (2000) cite instances in which clinic and outreach staff stressed sterilisation; still, reversible methods were also extensively emphasised (Koenig, Foo and Joshi 2000: 4). If targets for reversible contraceptives were more vigorously promoted - or even *perceived* to be more onerous, then also, the incentive to fudge sterilisation figures would have been comparatively weak. There are in fact indications of this. Thus, a micro survey in Agra district, Uttar Pradesh, attests to a far greater over-reporting of cases of temporary vis a vis permanent methods, practically all cases of female sterilisation. 34% of the reported IUD cases and 29% of those of the oral pill had been fudged. The fudging of records of sterilisation was relatively so insignificant that the figure was not thought worth mentioning in a publication that came out of that study (Singh *et al.* 1995a: 19). A similar pattern was found in their Gujarat surveys by Visaria, Visaria and Jain (1994); in their survey in Panchmahals district, over-reporting of 'acceptors' of reversible methods ranged, method wise, from 27% to 39%, with the corresponding figures for Bharuch from 15% to 38%. In the case of sterilisation acceptors, no cases in Panchmahals district were over-reported, while in Bharuch, the figure was only 4.5%. (Visaria, Visaria & Jain 1994: 299). The authors attribute the over-reporting to method-specific, time bound targeting pressures (Visaria, Visaria & Jain 1994: 302). To some extent, the extensive over-reporting of clients of reversible contraceptives may have been due also to difficulties on account of workload or supplies-related constraints on the health field-workers responsible for meeting targets for reversible methods. On the other hand, there are grounds to believe, as argued subsequently in this paper, that the *susceptible* cases of potential acceptors of reversible

contraceptives had been substantially mopped up, at least in areas extensively covered by the family planning programme, hence, given targeting pressures, the compulsion to extensively over-report.

National level data on target shortfalls also can be taken to be indicative of a greater pressure of targets for reversible methods. If, in the years following the Emergency, sterilisation targets were far in excess of acceptance, this was, in all likelihood, because field staff were subject to relatively weak targeting pressures in the context of public disenchantment with the family planning programme. While the number of sterilisations increased thereafter, plausibly due to a groundswell of 'robust' unmet need, the gap between targets and acceptance has, since the early eighties, been somewhat higher for sterilisation as compared to reversible methods (Srinivasan 1995: 141, 143). The smaller reported shortfalls for temporary methods despite evidence of the relatively greater fragility of demand for them, given the official policy in favour of their promotion, suggests that targeting pressures for reversible contraceptives were taken more seriously. This is, of course, a rough and ready reckoning, but other signs, such as targeting pressure gauged in terms of provider initiative, too point in the same direction; data from Agra district, Uttar Pradesh, shows it was far more for reversible methods - only a third of acceptors of sterilisation were motivated to go in for the method by a health worker, as compared to 58% and 68 % in the case of acceptors of the pill and the intra uterine device respectively (Singh *et. al.* 1995a: 20). The same survey instrument, canvassed in the Sitapur district of Uttar Pradesh, showed a similar differential (Singh *et al.* 1995b: 15-16). These data suggest that the provider-client interface was more important in precipitating the acceptance of reversible contraceptives, and that a substantial effort was made to mop up susceptible unmet need for reversible methods.

Quality of Care

When unmet need is 'fragile', data from the Bangladesh project attest, the grassroots-level health worker can tip the scales in favour of contraceptive acceptance. She can be a source of trust and credibility, and reassurance to a client apprehensive of contraception and its side effects, act as a link to the delivery system so as to offset *purdah,* attenuate the cultural barriers between women and the outside world, and provide support to offset

family counter pressures or the client's own ambivalence (Simmons, Baqee, Koenig and Phillips 1988). Likewise, in a study of 400 South Indian IUD acceptors, Prabhavathi and Sheshadri (1988) found that the likelihood of continued use depended on whether clients were given information on side effects, informed of alternative methods, and received follow up visits (Koenig, Hossain and Whittaker 1997: 279). Clearly, quality of care issues are critical to family planning acceptance and continuance. At the same time, would-be clients are well attuned to the finer nuances of the care scene. Thus, reporting on data from Bangladesh, Koenig, Hossain & Whittaker (1997: 286) show that trust, rapport and confidence between client and the health outreach worker were critical factors in contraceptive adoption, and, especially, continued use of reversible contraceptives.

Targets for reversible methods in the Indian family planning programme acquire significance in this context, as they are likely to have prodded the family planning functionaries at the grassroots to precipitate acceptance. Certainly, this would appear to be in the realm of the possible, as the study by Koenig, Hossain & Whittaker (1997) suggests. In Matlab *thana*, Bangladesh, moreover, the intensive family planning and maternal & child health outreach programme was able to precipitate a phenomenal rise in contraceptive use, of which the increased use for spacing accounted for as much as 57% (Koenig et. al. 1987: 122). Susceptible clients are liable to have been targeted, given pressures to maximise the number of contraceptive users (Arends-Kuenning 2002: 93). This is likely to be so also when working conditions are poor. As Simmons, Koblinksy & Phillips (1986: 263) note: 'In the face of extensive responsibilities to mobilise demand, weak managerial infrastructures, and difficult working conditions, outreach workers in the public sector programme are inclined to restrict work effort or steer towards clients with some potential interest in family planning'. Even when susceptible clients are more favourably disposed to providers, quality of care factors are nonetheless likely to be important. Thus, the client-worker interface has been found to have a strong net effect on contraceptive use, even when measures of demand are controlled for (Phillips, Akbar, Rob and Mozumder 1984; Phillips, Simmons, Koenig and Hossain 1986; cited in Simmons, Baqee, Koenig and Phillips 1988: 29). In another study, Koenig, Hossain and Whittaker show that after controlling for client characteristics, provider care in Bangladesh still increased the likelihood of contraception adoption (1997: 282-284).

The data these authors report on are from an experimental project to improve the coverage, quality and range of the services provided by the public sector, hence, the question is, if overall care levels are poor, will the extra care dollop matter? Indications are that client *perceptions* may matter more than actual quality of services. Thus, studies show a high degree of satisfaction with the Indian family planning programme despite its serious quality of care deficiencies, plausibly because expectations of the public sector are low, standards are deemed adequate in the absence of better options, or clients less educated than providers are 'unwilling or unable to question their treatment' (Koenig, Foo & Joshi 2000: 11-12). It can be hypothesised, in this context, that even when the quality of provider care is on the low side, the extra mile in care provision can be see as an attractive lollipop, so that the provider-client interface should induce contraceptive acceptance even at low care levels. There is also some anecdotal evidence of this in the literature. Patel, Patel & Mehta (1999), writing on their field experiences in Gujarat, report on how clients can be persuaded to continue with a contraceptive merely when they are told their fears are unfounded (1999: 337-338); and Townsend, Khan and Gupta (1999) tell of ANMs who bear the cost of antibiotics for a client, and for tea for the family members, for an unsatisfied client will make it difficult to recruit new ones (Townsend, Khan and Gupta 1999: 326). When a client encounters problems, ethnographic evidence affirms, word of it gets around via the potent agency of gossip and it becomes part of the meanings ascribed to family planning in the collective memory, so that poor care levels can deter potential clients (Patel 1994: 191).

To a certain extent, it is true, the difficulty in meeting targets leads to a fabrication of records, as data from the micro survey in Agra district cited earlier affirms. Still, about 70% of the IUD and pill cases were genuine, as were practically all the reported cases of sterilisation (Singh *et al.*, 1995a: 19). The Gujarat data reported by Visaria, Visaria & Jain (1994) also show that notwithstanding over-reporting, a good deal of the reported cases were genuine. As per the author's field perceptions in rural Uttar Pradesh over the course of the Agra survey, at one extreme are health staff who are delinquent and extensively fabricate records, while at the other end can be found a handful whose commitment and dedication are truly exemplary (Balakrishnan 1996a, 1996b).[2] These may well be the extremities of a 'normal distribution'

2 Differences in worker commitment were found also in a study of family planning in Kanpur (Misra, Ashraf, Simmons & Simmons 1982); some village level workers hardly ever worked, while others were quite regular (cited in Simmons, Koblinsky & Phillips 1986: 262).

of which the middle range is made up of those who have a moderate level of commitment, but still, feel they have to earn their keep and will tend to go the extra mile in response to targeting pressures. Fear of punitive consequences is also likely to be a factor at work. A study of reproductive health delivery through the primary health care system in Gujarat found that health workers who do not report having met targets are reprimanded in monthly meetings and threatened with transfers and the withholding of annual salary increases (Visaria 1999: 152); and qualitative data from U.P. shows that ANMs were apprehensive of their lapses coming to light (Balakrishnan 1996a).

The Fragility Frontier

When deficiencies of supply are added to the family resistance factor, unmet need will be subject to a far greater burden of 'fragility-inducing' influences. Since family resistance is likely to weigh in the balance only *before* the desired number of children have been born, women with an unmet need for limiting will tend to be less constrained than women with an unmet need for spacing, or unmet need for the former will, on this count, be less 'fragile'. Still, if acceptors of reversible contraceptives receive better care as an 'inducement', the fragility of unmet need among potential clients wanting to use reversible methods should be weakened. Yet, data from the NFHS, gathered before family planning targets were abolished in 1996, showed that in the reference period 1992-93, as many as 76% of the women with unmet need for spacing in Uttar Pradesh said they did not intend to match need with use, so that the 'fragility' of the demand for reversible contraceptives was quite extensive. In the face of the pressure of targets, the promotion of reversible methods may have, at some point, come up against a 'fragility frontier', one that marked a transition to relatively intense levels of fragility after the cases of somewhat weak fragility were co-opted.

This explains why the demand for sterilisation was far more extensively catered for, the policy thrust in favour of reversible methods for over a decade notwithstanding. As of 1992-93, only 10% of the met need for contraception in Uttar Pradesh was accounted for by the met need for spacing, and 89% of the total need for spacing was unmet (Radha Devi, Rastogi and Retherford 1996: 1). If the family planning behemoth could not move beyond that point after huffing and puffing since the 1980s, when targets for reversible contraceptives were emphasised, it is liable to

have come up against a 'fragility frontier'. It is not a frontier that is fixed for all time; as women advance in years, there is an increase of numbers in the susceptible category, for instance, of women who have achieved desired family size and wish to wait to make sure of child survival before going in for sterilisation. Another susceptible category, as per the testimony of the NFHS - women with literacy attainments (Radha Devi, Rastogi & Retherford 1996: 15), it can be expected, will also be replenished over time. The 'fragility frontier', as these examples suggest, is constantly moving outwards - but the Indian family planning programme has not been able to out-pace it and storm its bastions.

Evidence from Micro Surveys

The micro data on which this paper draws are from a survey of health and family planning sponsored jointly by the Council for Social Development and the Population Council. Field operations were carried out in rural areas of the Agra and Sitapur districts of Uttar Pradesh between April and June, 1995. In Agra district, data were obtained from 437 sterilisation beneficiaries, 320 users of the pill and 499 acceptors of the intra uterine device (Singh et. al. 1995a: 19). In Sitapur, 332 sterilisation acceptors, 354 IUD acceptors and 428 acceptors of the Pill were interviewed (Singh et. al. 1995b: 3). Clients were selected from among cases routed through the public health system at a time when family planning targets were still in force. Some of the findings from these surveys have been reported in Singh *et al.* (1995a, 1995b).

Professional Care

As per the testimony of medical staff, recommended procedures had been carried out prior to provision of the method for as many as 30% of the users of sterilisation, with the figures for acceptors of the intra uterine device and the pill at 23% and 14% respectively (Singh et. al. 1995a: 25). Procedures claimed to have been carried out may, however, reflect nothing more than the greater professional knowledge of doctors, who were responsible for sterilisation cases, vis a vis the grassroots health worker, mainly the Auxiliary Nurse and Midwife (ANM) and the Lady Health Visitor (LHV), who had to cater to acceptors of reversible contraception. Both categories of medical personnel knew their competence was under scrutiny via the survey instruments and could hardly be expected

to have deliberately presented themselves in a dismal light. In their study of three sterilisation camps in Sitapur district, Uttar Pradesh, Townsend, Khan and Gupta (1999) refer to an instance in which a woman whose haemoglobin level was low was cited in the register as having an adequate level. A nurse commented that if all anaemic women were kept out, the sterilisation camp would have no clients (Townsend, Khan & Gupta 1999: 324). Even if claims of procedures carried out are true, the question still remains as to how conscientiously and attentively concerns, problems and bottlenecks were tackled. Data gathered from clients in the Agra and Sitapur districts of Uttar Pradesh shows that pill and IUD acceptors were far better informed of methods, including side effects (Singh et. al. 1995a: 23; Singh et. al. 1995b: 17-18).[3] This, coupled with the evidence of more extensive provider initiative for reversible methods in the two separate surveys in Agra and Sitapur districts of U.P. (Singh *et al.* 1995a: 20; Singh *et al.* 1995b: 16) are indications that targeting pressures to promote reversible methods were more strongly felt, despite the greater fragility of demand for reversible contraceptives. Provider initiative, moreover, can be taken to reflect not just efforts by health providers to 'motivate' their clients in order to meet targets, they can also be indicative of follow-up care, as Visaria (1997) reports, based on quantitative as well as qualitative data from Gujarat (Visaria 1997: 158). It is important to note that these are *indications*, not *indicators* - there can be many facets of care provision in the fabric of the provider-client interface. One study tries to capture care from family planning workers in terms of a composite score based on five questions asked to respondents: (a) Is the field worker responsive to your questions (b) Is she appreciative of your need for privacy? (c) Is she someone you can depend on to help with your problems? (d) Is she sympathetic to your problems and needs? (e) When she explains something to you, does she provide enough information? (Koenig, Hossain & Whittaker 1997: 287). Unlike that study, this one is not specifically designed to examine these issues. It merely tries to make sense of data from various sources, and to suggest that targeting pressures for reversible methods in the face of the 'fragility frontier' had stimulated provider initiative to mop up the more susceptible cases of unmet need for reversible contraceptives.

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3 As regards information on remedial action, the picture is not clear-cut. In Sitapur, method wise differentials were negligible (Singh et. al. 1995b: 18), while in Agra, IUD acceptors were best informed, followed by acceptors of sterilisation and the pill (Singh et. al. 1995a: 23). However, in the case of sterilisation, information on 'remedial action' generally refers to advice to seek help at the health centre (Singh et. al. 1995a: 24).

Uses of Reversible Contraceptives

Data on reversible contraceptive use from the Agra district of Uttar Pradesh, when cross classified by purpose of use, showed that more than half of IUD and pill users were using *non terminal* methods to *avert* births (Singh 1995a: 30). Only half the reversible contraceptives were used to avert; the use of reversible methods to avert did not account for *all* the susceptible cases of the unmet need for reversible contraceptives. Still, the fact that the use of reversible contraceptives was all bunched up at one extreme of the reproductive span suggests that unmet need over the rest of a woman's reproductive career was characterised by a considerable 'fragility'. If, as argued earlier, it can be assumed that the pressure of targets to promote reversible methods had led to a substantial mopping up of potential susceptible clients of reversible contraceptives, then it can be inferred that the susceptible unmet need for reversible methods was lightly spread over the reproductive span and bunched up at the point where optimal family size had been achieved. On the other hand, indications from fieldwork in Agra district are that the ANM mostly confined her activities to her 'sub-centre' village, from where she was required to operate. This would imply that an increase in the coverage of the family planning programme could facilitate the mopping up of additional susceptible unmet need. Even if that were so on an extensive scale, the data would still be amenable to interpretation in terms of the fragility of the unmet need for reversible methods over most of the reproductive span.

How can the pattern be explained? Reversible contraceptives, as the NFHS points out, are desired not only to space, but are also sought by clients who are unsure about whether they want to have another child (Radha Devi, Rastogi & Retherford 1996: 3). One rationale for this comes through quite vividly in Patel's 'flesh and blood' ethnography of a village in one of the BIMARU States - Rajasthan (Patel 1994). The author tells of how child mortality fuels the dread of sterilisation. When she interviewed the daughter in law of a house to elicit her views on sterilisation, the mother in law intervened to cite the case of a woman who lost three sons after she was sterilised, two of whom died of fever in quick succession, while the third died a month later. Patel reports also that child mortality affects not just the grieving parents, it evokes a collective dread, hence it is considered rational to have one or two extra children to insure against child mortality. Also, it is rare to see a parent going in for sterilisation

after desired family size is achieved - he or she usually waits for a few years to be sure of child survival (Patel 1994: 197-199, 212, 154). The demand for reversible contraceptives to avert is hence likely to be readily susceptible to the field outreach health worker (the ANM) and her provider-client interface. It may be that reversible methods were extensively used in U.P., and perhaps in other BIMARU States, to curtail the 'insurance motive' for childbearing, i.e., the motive to have additional children in order to insure against child mortality. There can also be one other reason for using reversible methods to avert; it is possible that providers, under pressure to promote reversible methods and acutely aware of the 'fragility frontier', saw possibilities in 'selling' reversible contraceptives as an attractive *alternative* to permanent methods. Whatever the interpretation, the official policy of emphasising targets for reversible methods appears to have had a curious consequence.

Sampling Bias

The micro data on which the paper draws are liable to be subject to a sampling bias that could, to a significant degree, account for the evidence of better information provision and more extensive provider initiative for acceptors of temporary contraceptives. While a preliminary sampling of PHCs (Primary Health Centres) and SCs (Sub Centres) from whose jurisdictions family planning acceptors were to be selected was done on a uniformly random basis, the final stage of selection, in which the acceptors list was drawn up, was somewhat problematic, for the sampling of pill and IUD cases was prone to a potential bias in favour of the selection of clients who received relatively superior treatment at the hands of health-care providers. The selection of cases of sterilisation, tended, by comparison, to be more randomised. On the one hand, sterilisation acceptor cases were systematically documented in PHCs by an official known as a 'Computer', whose sole function is to maintain records. In the case of the IUD and pill, by contrast, it is a different story. IUD records were sometimes documented in Computer records, sometimes not, and records of pill acceptors were never available from Computer sources. A selection of pill and, sometimes, IUD users had therefore to be done on the basis of cases reported by the Auxiliary Nurse and Midwife (ANM), a field functionary who not only had to establish contact with potential clients and achieve acceptor targets for reversible methods, but was also responsible for the

provision of follow up care. The ANMs knew of the survey team's investigation of the quality of care received by clients and this, it could be expected, would have made them inclined to screen out problem cases. Efforts were made to ensure that sampling distortions of this kind were minimised by an insistence on written records in preference to a reliance on verbal communication. But while written records could supposedly be accessed from diaries maintained by ANMs, these were most often not immediately available or could not be traced. Consequently, verbal communication had to be extensively relied upon.

One factor inimical to sampling bias is that the ANMs may not have always had the presence of mind to conceal their lapses. Often, investigators wielding schedules swooped down on them without warning; though word of the survey team's presence in the area did get around, the grapevine's functioning was less than perfect, so that disconcerted ANMs were, on many an occasion, taken by surprise. Moreover, to circumvent possibilities of sampling error, ANMs were asked to cite a greater number of beneficiaries than required and a selection was made from these cases. That strategy was however not integral to field operations from the beginning; it evolved while the survey was under way. It was, nevertheless, a *modus operandi* that would have gone some way towards mitigating sampling bias. Also, in instances of IUD records available from the Computer, the ANMs were not given an opportunities to distort the sample - but the policy of preference for IUD records from Computer sources came into effect only after an initial teething phase of the survey, when the sampling bias issue came into focus.

The author also recalls an instance when he was present at the time the records of the Computer were scrutinised by one of the survey teams in Agra district to identify clients who could be administered schedules. The number of IUD and sterilisation cases recorded as falling under a given Sub Centre in the sampling time frame was less than the number to be sampled. The sampling time frame in Agra district was six months prior to the survey; and in both the Agra and Sitapur segments of the survey, five acceptors of sterilisation, IUD and the pill were to be selected from each sub centre (Singh et al. 1995a: 19; 1995b: 3). As the number of recorded cases was greater than the number to be sampled, *all* the recorded clients were selected for sampling. Thus these cases comprised a *census* of such clients. It is not clear, however, as to why so few cases were

reported or how extensively this was so. Citing data from four rural districts of Gujarat, Visaria (1999: 151-152) finds that the average number of IUD insertions reported by the ANMs was close to the annual target of 25 per year. The author however expresses scepticism about this figure and cites another study (Visaria, Visaria & Jain 1994) to suggest that it may have represented only a nominal fulfilment of targets. Still, if we discount the over-reporting as estimated by Visaria, Visaria & Jain (1994: 299), their IUD acceptance figures would still be on the high side. Maybe the Gujarat programme was more efficient, or social conditions there were conducive to higher acceptance rates.

The Weight of Evidence

Notwithstanding the steps to reduce sampling bias, the possibility of the ANMs having significantly distorted the sample cannot be brushed aside altogether. We therefore have two interpretations to account for the micro data's evidence of the provider-client interface as a significant factor in the acceptance of reversible methods - one, that it was an implicit facet of a promotion of temporary methods and two, that the findings merely reflect sampling bias. The truth may, of course, contain elements of both. What is of interest is whether the data bear out the role of provider-client interface to a significant extent. As Conan Doyle's detective of fiction might have said, the question is not whether the theory *fits* the facts, but whether it *explains* them. While Doyle's detective went on to clinch the case,[4] we, dear reader, are at our wits end, for at the end of the day, all there is to report is: 'We know not whether the deed was done!' We may console ourselves with the thought that it may well be an instance of the theory being right and the facts being weak. Conclusiveness, furthermore, is an elusive goal, and the search for probable cause as integral to the scholastic calling as the quest for precision. To sum up, pressures to meet targets for reversible methods provide the motive for the 'deed' and indications that provider initiative *can* precipitate contraceptive acceptance add to the weight of evidence.

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4 Except for the four times he was beaten, thrice by male antagonists and once by the kind yet astute Irene Adler, for whom the great detective professed an unstinting admiration after she outsmarted him (Doyle 1930a, 1930b).

Policy & Research Issues

Much has been written of how the family planning programme's emphasis the promotion of targets is inimical to quality of care, for it is the achievem of targets rather than client needs that is on the agenda in a targeting regi (Koenig et. al. 2000: 12-13). While evidence presented in this paper sugge that the pressure of targets can in fact impact positively on the care receiv by clients, this does not mean that targets are the best means of ensurir quality of care. No matter how much the grassroots health worker is 'motivate or pressurised to offer quality care as an incentive to induce acceptance, h or she will be limited by his or her level of competence. This can be quite severe limitation, as evidence from rural Uttar Pradesh attests. Infrastructura bottlenecks affecting supplies and equipment are other impediments (Singh *et al.*, 1995a, 1995b).

The 'wisdom' of targets, moreover, is dubious even if infrastructure and provider competence are at acceptable levels. If targets rather than quality of care are what is emphasised, then, faced with maximising targets, the purveyors of family planning are liable to be prone to the logic of providing only the minimal level of care necessary to maximise acceptance or directing their efforts towards 'harvesting' the more susceptible cases. Yet, targets ought not to be dispensed with altogether. They can precipitate contraceptive acceptance, as the evidence in this paper suggests. This is affirmed also in a recent study based on data from the Bangladesh MCH-FP (Maternal & Child Care - Family Planning) experimental project, in which it was found that the field workers in the contraceptive doorstep delivery system were able to promote contraceptive acceptance and continuation. Not only that, the impact on both contraceptive adoption and continuation was greater for uneducated as compared to educated women, and was more in poorer as compared to better-off areas. Thus, assigning workers to poorer areas and to uneducated women has the potential to increase efficiency and equity (Arends-Kuenning 2002).

Why women wish to postpone their next birth on the extensive scale shown by the NFHS for Uttar Pradesh, and why the widespread unmet need for spacing is marked by considerable 'fragility' are also questions with implications for policy. It is necessary to probe into and assess the weight of factors like the desire to recuperate from the physiological burdens of repeat pregnancies, women's authority in the household, and the potential for mopping up the more susceptible cases of unmet need.

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