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The Quality of Family Welfare Services in Rural Maharashtra: Insights from a Client Survey

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For the last three decades, India's Family Welfare Programme has pursued the goal of reducing fertility as rapidly as possible. Until recently the means used to achieve this goal were method-specific contraceptive targets and cash incentives for acceptors. The Indian government has recognized that this approach has failed to produce the desired reduction in fertility because it has emphasized targets and incentives to the detriment of quality. To remedy the situation, the government has adopted a reproductive health approach for delivering family welfare services and has taken the critical step of removing method-specific contraceptive targets. In addition, the government has decided that the Family Welfare Programme should focus on quality of care, client satisfaction, and service coverage. This chapter presents results from a survey designed to assess the quality of care of, and client satisfaction with, the Family Welfare Programme in a district in rural Maharashtra. The study also identifies specific program elements deemed to be detrimental and client characteristics that influence program quality and client satisfaction.

Bruce (1990), identified six criteria for evaluating the quality of family planning services: (1) method choice, (2) information given to clients, (3) technical competence of the service provider, (4) interpersonal relations between client and service provider, (5) mechanisms to encourage continuity, (6) and appropriate constellation of services. In Bruce's view, a program having these six elements can be assumed to provide good service. Jain (1992) contends there is no firm evidence that all these elements represent a high quality of services for clients; however, studies we reviewed in India and elsewhere have confirmed that clients; satisfaction is related to most of these elements and that client satisfaction leads to the acceptance of services.

In a study in Santiago, Chile, for example, Vera (1993) found that clients considered the most important elements of service quality to be a clean and hygienic place; prompt service; treatment as an equal by service providers; useful information and the opportunity to learn; enough time to consult with the staff, cordial, likable, and friendly staff; and access to prescribed medicines. In Vera's study, women frequently mentioned how much they appreciated being treated as responsible adults-that is, not scolded or made to feel ignorant. This element of interpersonal relations was more important in their assessment of quality than the competence of staff or effectiveness of treatment.

Several Indian studies have reported that the rude behavior of health staff has been a major reason why women have not liked or used the government health services. A study in the state of Gujarat found that 20 percent of clients were not satisfied with the government services because they had to wait too long for the services and the staff did not treat them properly (Visaria and Visaria 1990). Nearly 60 percent of the respondents in the study reported going to private doctors because those doctors provided better-quality services, even though government hospitals had better diagnostic equipment and better-trained doctors.

Government health functionaries usually blame the lack of equipment and supplies for the poor quality of their services. Ramasundaram (1994), however, has observed that even when equipment and supplies were made available, clients of the government's Family Welfare Programme received poor quality of care. He attributed this to the attitudes of health workers; who showed little respect for clients, especially if they were poor, illiterate, or from lower social strata. Some health workers even believed that because the government provided free services and also gave cash incentives for sterilization operations, the clients had no right to demand good-quality services.

Other factors that can affect service quality include the lack of critical services, such as emergency obstetric care and treatment for reproductive tract infections and sexually transmitted diseases; the lack at some sub-centers (SCs) of such routine services as complete antenatal care (ranging from the administration of tetanus toxoid [TT] to urine examinations; the failure to provide adequate information to acceptors of family planning methods; the failure to check clients for contraindications before inserting intrauterine devices (IUDs) or prescribing oral contraceptives; and the failure to provide adequate follow-up care or counseling (World Bank 1995).

In a study of nine districts in four Indian states, Verma, Roy, and Saxena (1994) found that clients perceptions of program quality had a significant effect on their acceptance of family planning services. The quality dimensions used in their study were: (1) the quality of doctors (i.e., availability of doctors, attention paid by doctors to clients concerns, and whether doctors suggested spacing methods); (2) the quality of facilities (i.e., availability of medicines, cleanliness of facilities, and provision of privacy); (3) the quality of workers (their perceived sincerity, attention to clients, and ability to generate confidence); and (4) the time involved in obtaining services (the amount of time required to reach the clinic, waiting time, and time taken for service). The study found a high correlation among the first three dimensions of quality. Clients rated program quality as "very good" when they found all three elements-doctors, facilities, and workers to be of good quality. Further, the use of family planning methods was significantly higher among those who considered program quality to be very good than among those who did not.

These studies suggest that clients recognize program quality when they encounter it, that higher program quality leads to greater client satisfaction and thus to greater acceptance of services, and that clients possibly assess service quality more on the basis of the quality of the delivery process than upon its technical content. It is therefore important to understand the delivery process and how it can be influenced to improve service quality.

The quality of the service delivery process is a product of many interactions that take place between service providers and clients. Those interactions are so numerous and occur at so many points-in homes, clinics, and service camps that program managers who are responsible for program quality can neither standardize them nor directly monitor them (Parasuraman, Zeithaml, and Barry 1988). Managers can try to influence them, however, if they know how clients assess the quality of a delivery process, what factors influence quality, and how to modify those factors. This chapter focuses on variables that influence the quality of the delivery process.

The Data

Data for this operations research project were collected from Parner Block of Ahmednagar District in Maharashtra. Parner Block has a population of about 200,000, spread over 131 villages. Among these villages there are seven primary health centers (PHCs) and 31 SCs; the remaining 93 villages have no government health facilities. The project was conducted jointly by the Directorate of Health

Services of Maharashtra and the Foundation for Research in Health Systems, a non-governmental organization (NGO). The state government took responsibility for implementing the project, while the NGO provided research support and helped the government think through systemic improvements. A state-level steering committee was set up to guide and monitor the progress.

A baseline survey was conducted in January 1994 to set quantitative benchmarks for project activities. The sample consisted of 1,023 married women of reproductive age (under age 45), chosen from 40 randomly selected villages in the block. Because the probability that a village would be selected was proportional to its population, 7 PHC villages, 17 SC villages, and 16 villages without health facilities ("other villages") were included in the sample. The survey gathered information about local maternal and child health care services from 624 mothers whose children were less than 5 years old and also information about family planning from all 1,023 women in the sample. Information gathered about the women's background characteristics included their education, type of house, household possessions, caste, and type of health services available in the village. Families who lived in *kuccha* houses (houses with thatched roofs) and did not possess such items as a radio, bicycle, or electricity were classified as poor. Families belonging to lower social castes and tribes as defined by the Indian government were classified as scheduled castes or tribes. Finally, auxiliary nurse-midwives (ANMS) and doctors from the Family Welfare Programme were interviewed to obtain information on the technical content of services and on service providers' perspectives on selected service-delivery processes.

Findings

The data were first analyzed to assess the quality and coverage rates of family welfare services in Ahmednagar District. The analysis then focused on whether those rates varied with clients' background characteristics and with the quality of services provided.

Coverage of Family Welfare Services

Coverage rates of family welfare services were found to be fairly high in the study area. More than 80 percent of mothers had registered for antenatal care, 81 percent of children 12-23 months of age had been fully immunized, and about 59 percent of the respondents reported using some method of contraception (Table 3.1). When we examined those coverage rates against the clients' background variables, some interesting differences emerged.

Table 3.1: Coverage of family welfare services, by client's background characteristics: Ahmednagar District, Maharashtra, 1994

Characteristic	(No.)	Antenatal care registrations (%)	Fully immunized children (%)	Contraceptive ever-users (%)
Residence	(673)	85	83	57
PHC/SC village	(350)	69	76	61
Other villages				
Mother's education	(405)	74	73	64
Illiterate	(618)	84	85	55
Literate				
Economic status	(689)	78	80	59
Poor	(334)	83	83	58
Not poor				
Social status	(328)	82	84	61
SC/ST	(695)	79	80	57
Other castes				
Total	(1,023)	80	81	59

PHC/SC = primary health center or subcenter; SC/ST = scheduled caste or scheduled tribe.

Registration rates for antenatal care were somewhat more, but not consistently, related to clients' background characteristics, whereas child immunization rates were somewhat less so. Antenatal care registration was substantially higher among respondents living in villages with a PHC or SC (85 percent) than among those living in more remote villages (69 percent); similar differences were evident for full immunization (83 percent versus 76 percent). The next most sensitive relationship was with mother's education, with literate women reporting higher levels of antenatal care registration and full immunization than illiterate women. Economic status and caste, however, showed little effect on registration levels.

In the case of family planning use, the highest rates were found among illiterate women and those living in non-PHC/SC villages. Many literate women reported that they were practicing natural methods, but those methods were not included in the estimation of the coverage rates. Once again, no significant difference was observed in family planning use rates by economic or social status.

The lower antenatal care registration in non-PHC/SC villages was not due entirely to much higher proportions of illiterate women living in those villages (52 percent compared with 33 percent in villages with health facilities). Even after we controlled for education, registration rates for antenatal care in PHC/SC villages were somewhat higher than those in more remote villages.

ANMs reported that they found it difficult to explain the advantages of antenatal care to illiterate women. Although they had a little less difficulty explaining the importance of child immunization, the proportion of children fully immunized was significantly lower among the children of illiterate mothers (73 percent) than among those whose mothers were literate (85 percent).

Quality of the Service-Delivery System

We next assessed the quality of the system for delivering family welfare services. During the survey interviews, respondents were asked four questions about the delivery process: (1) Had they been visited by a health worker during the previous three months? (2) If so, were they satisfied with the amount of time the worker spent with them? (3) Had the client been told about spacing methods? and (4) Had the client been informed about the possible side effects of all methods discussed? The percentages of affirmative answers to these questions were used to construct an index of service quality. The overall index of quality assessed in this fashion was found to be less than 50 percent, indicating considerable scope for improvement.

About 51 percent of the respondents reported that an ANM had visited them during the previous three months (Table 3.2). ANMs were expected to visit 50 households per day and to visit all houses within their area once every month. It was possible to complete this task only if they spent less than five minutes at each house. The ANMs were making only one-half of the expected number of visits, but they were not necessarily spending more time in the homes they visited. According to respondent women who had been recently visited, only a minority of visits (36 percent) lasted for more than five minutes. Nevertheless, more than 75 percent of the women who reported ANM visits-were satisfied

with the amount of time the ANMs had spent with them (data not shown). Women sympathized with the ANMs, and many commented that the ANMs were required to visit too many houses, so it was understandable and acceptable that they did not spend much time in each house, provided that their visits were regular.

Table 3.2: Quality of service delivery, by client's background characteristics: Ahmednagar District, Maharashtra, 1994

Characteristic	(No.)	ANM visited (%)	ANM spent 5+ minutes (%)	ANM discussed	
				Spacing (%)	Side effects (%)
Residence	(673)	61	44	49	51
PHC/SC villages	(350)	32	18	18	36
Other villages					
Mother's education	(405)	45	30	37	38
Illiterate	(618)	56	39	42	51
Literate					
Economic status	(689)	51	34	40	43
Poor	(334)	53	37	41	50
Not poor					
Social status	(328)	58	42	48	46
SC/ST	(695)	48	32	37	45
Other castes					
Total	(1,023)	51	36	40	45

ANM = auxiliary nurse-midwife; PHC/SC = primary health center or subcenter; SC/ST = scheduled caste

Another aspect of the delivery process that the survey explored was whether women were given a choice of contraceptive methods and whether they were told about possible side effects of all methods. The survey of ANMs revealed that most health workers were reluctant to inform women about the possible side effects of contraceptive methods, especially of sterilization. The workers believed that this information discouraged women from accepting any method. Only a

minority of acceptors of all methods (45 percent) reported that they had been told about possible side effects of the method they were adopting; this percentage was notably higher for IUD and pill users (80 percent) than for sterilization acceptors.

When these service variables were analyzed against clients' background characteristics, important differences were evident in all four elements of the delivery process, especially with respect to place of residence (non-PHC/SC villages versus villages with health facilities). ANMs visited the remote villages less frequently, and in only a few homes (18 percent) did they spend more than five minutes because, as they explained to interviewers, they had little time at their disposal. Nearly three times as many women in the PHC/SC villages were told about spacing methods as in more remote villages (49 percent versus 18 percent). The ANMs explained that women living in remote villages could not reach the health centers easily if they experienced side effects from spacing methods. Moreover, the ANMs were not sure that they could maintain a regular supply of oral contraceptives to those women, and therefore they appeared to pursue a deliberate policy of not promoting spacing methods in remote villages.

Another significant finding was that a higher percentage of lower-caste families reported ANM visits than did families from other castes. Interestingly, during the survey some lower-caste respondents voiced complaints that because most ANMs belonged to higher castes, they avoided visiting the houses of scheduled-caste and tribal families. The ANMs, however, denied any such bias on their part, and the data support their contention. Nevertheless, they were more likely both to visit literate women and to inform them about side effects associated with contraceptive methods than to have such contact with illiterate women. Although differences between poor and not-poor women were not evident with respect to visitation, better-off women were more likely than poor women to have received information on side effects.

Technical Quality of Services

To assess the technical quality of family welfare services, we examined six indicators. They were the proportions of clients who (1) had received complete antenatal checkups; (2) had their deliveries attended by trained personnel; (3) had their children fully immunized; (4) began breastfeeding immediately after delivery; (5) experienced side effects from sterilization; and (6) received treatment for side effects at the government centers. All six indicators were based on the information provided by women during the survey.

For antenatal services, technical quality was defined as receiving a complete range of checkups that included a urine test, blood- pressure check, abdominal examination, TT injection, and treatment for anemia. Delivery by trained persons was another indicator used for assessing the technical quality. Only about one-half of antenatal cases met those two criteria: 46 percent of the women had received a complete antenatal checkup and 51 percent had had their delivery attended by a trained provider (Table 3.3). To assess the technical quality of child immunizations, we examined the proportion of children who were fully immunized against five childhood diseases. This was 86 percent, and only a few dropouts were attributable in part to the health system's failure to supply vaccines (particularly measles vaccine) or to adverse reactions to immunization.

Table 3.3: Selected indicators of the technical quality of family welfare services: Ahmednagar District, Maharashtra, 1994

Indicator	Percentage
Received complete antenatal checkup	46
Delivery attended by trained personnel	51
Child fully immunized	86
Began breastfeeding immediately	22
Experienced side effects from sterilization	39
Side effects treated at government center	47

We assessed the technical quality of family planning by the incidence of side effects reported among sterilization acceptors and the percentage of women who had received treatment for side effects at the government health centers. Approximately 39 percent of sterilization acceptors reported side effects. Although the survey did not probe the nature and severity of those side effects, nearly 70 percent of the women who had experienced side effects reported taking medical treatment for them, and almost half of them had gone to a government health center for treatment. The proportion of women reporting side effects of spacing methods was much lower (18 percent), largely because those who suffered side effects were likely to have already discontinued the method.

During the survey interviews, few respondents complained about the quality of family planning services or about the absence of follow-up care. More than 70 percent of the acceptors said they were willing to recommend their method to friends or relatives, indicating their confidence in the method. Even among those who reported side effects, a majority said they would recommend their method to friends. We interpreted this response to mean that the side effects were generally not too severe.

We next examined the technical quality of services by client characteristics (Table 3.4). For five of the six indicators, the technical quality of services was poor for clients living in remote villages and those with no education. The only exception was sterilization side effects, with somewhat fewer women from remote villages than from PHC/SC villages reporting having experienced them, although this difference was not significant. The coverage levels of antenatal services received by women living in remote villages remained significantly lower, even after controlling for education.

Table 3.4: Technical quality of MCH and family planning services, by client's background characteristics: Ahmednagar District, Maharashtra, 1994

Characteristic	(N)	Antenatal checkup (%)	Delivery by trained person (%)	Immunization coverage (%)	Immediate breast-feeding (%)	Steriliz. Side effects (%)	Treated at govt. center (%)
Residence	(673)	53	59	87	27	40	51
PHC/SC village	(350)	28	29	74	10	36	39
Other villages							
Mother's education	(405)	34	33	75	15	40	45
Illiterate	(618)	52	60	88	26	38	49
Literate							
Economic status	(689)	40	43	81	18	38	47
Poor	(334)	56	63	87	29	39	48
Not poor							
Social status	(328)	52	59	87	24	36	47
SC/ST	(695)	43	46	82	21	40	47
Other castes							

Total	(1,023)	46	51	86	22	39	47

MCH = maternal and child health; PHC/SC = primary health center or subcenter; SC/ST = scheduled caste or scheduled tribe.

The ANMs attributed the quality differences between PHC/SC villages and those without health facilities to the failure of illiterate women to come to the health centers for checkups, suggesting that such women did not appreciate the need for the services. However, the ANMs did not mention that antenatal checkups were offered only at the PHC clinics or at SCs with proper facilities. Women living in remote villages had no easy access to these services. In addition, many women from poor households were not able to come to the clinics because they had to work. Therefore, even after controlling for the effects of education, we found that lack of time and access to the clinics appeared to prevent women from receiving the full range of antenatal checkups.

The delivery of immunization services, in contrast, has improved over the years, and these services are now available in each village on a specified day of each month. This improvement was reflected in immunization coverage rates, which showed no differences between PHC/SC and other villages when corrected for the different proportions of educated mothers in those villages (data not shown). This finding suggests that antenatal service providers should consider adopting a delivery strategy similar to that for immunization services.

Satisfaction with Government Services

The survey data showed widespread use of private doctors for such services as deliveries and family planning, in both PHCISC and more remote villages. The share of private services was also similar in both types of villages (Table 3.5). These findings suggest that women went to private doctors not because government services were not accessible, but rather because they preferred the private services if they could afford them.

Table 3.5: Sources of MCH and family planning services, by village type: Ahmednagar District, Maharashtra, 1994

Services	**PHC/SC villages**	**Other villages**

	Government	Private	Government	Private
Family planning	70	30	74	26
Antenatal care	66	34	63	37
Institutional deliveries	34	66	41	59
Treatment of childhood diarrhea and ARI	20	80	20	80

ARI = acute respiratory infections; MCH = maternal and child health; PHC/SC = primary health center or subcenter.

When the women were asked how they had chosen their service provider, the criterion mentioned most frequently (81 percent) was "effective treatment or good experience in the past" (data not shown). Other criteria mentioned were the availability of a doctor (48 percent), proximity to home (35 percent), and affordable cost (15 percent). In the opinion of most respondents (more than 80 percent), private practitioners met these criteria better than government doctors.

Several investigations of the quality of health services have found that regardless of the type of service, clients use similar criteria to evaluate service quality (Parasuraman and Zeithaml 1986). These are tangibles (appearance of facilities, equipment, and personnel), responsiveness (willingness to help and provide prompt service), reliability (dependability and appropriateness of services), empathy (caring attention by service providers), and assurance (trust and confidence in service providers). Although clients can directly assess service quality by using these criteria, their satisfaction with a service depends on how well the services performs as compared with an "ideal" service that the clients have experienced or know about.

Because most village women in our sample looked upon private services as ideal, we compared their perceptions of government and private services to gauge the extent to which they were satisfied with the government services. This exercise was carried out with a standard measurement instrument called SERVQUAL (Parasuraman, Zeithaml, and Barry 1988). It consists of 10 items representing the five criteria of quality mentioned above. Respondents were asked to specify how

frequently those items were present in the government and private services. Their tabulated responses are shown in Table 3.6.

Table 3.6: Client satisfaction with government and private services: Ahmednagar District, Maharashtra, 1994

Criteria	Percentage satisfied with		Difference [A] (%)
	Government	Private	
Tangibles	81	95	17
Clinic is neat and clean	56	82	46
Medicines are available			
Responsiveness	69	88	28
Doctors pay attention	74	69	-7
Don't have to wait long			
Reliability	62	86	39
Treatment is effective	68	94	38
Patient is properly examined			
Empathy	68	87	28
Timing is convenient	74	90	22
Staff is friendly			
Assurance	64	87	36
Doctor is available when needed	75	94	25
Questions are answered			

[A] Private - Government/Government x 100

On all items but one, the respondents rated the government services as inferior to the private services. The overall score for the government services was 30 percent lower than that for the private services. But on some items the differences were much greater. We infer that those items reflect significant areas of dissatisfaction with government services.

Sources of Dissatisfaction with Government Services

The largest differences in respondents' ratings of the government and private-sector services were in the reliability criteria. Significantly more women thought that private doctors examined them properly and gave more effective treatment than they received from government doctors. The four items on which the difference between private and government ratings was more than 30 percent were availability of medicines (46 percent difference), effective treatment (39 percent difference), proper examination of patients (38 percent difference), and availability of doctors (36 percent difference).

A shortage of doctors was indeed a problem in the study area. Although 14 medical officer positions were sanctioned for the block's PHCs, only seven were filled at the time of the survey. All the PHCs were functioning with one medical officer instead of two. Therefore, the probability that a doctor would not be available to treat a patient seeking care at a PHC was high because the medical officers had administrative duties as well as responsibility for treatment.

Government doctors were able to spend very little time with patients. For example, during a four-hour period in the outpatient department of one PHC, the average number of patients seen was about 50, with the result that the average amount of time available per patient was less than five minutes. Most of the PHC doctors did not examine antenatal cases themselves, not even high-risk cases, but in- stead referred them to the ANMs.

The PHC doctors defended their actions by arguing that because most patients came to the PHCs with only minor ailments, they did not need lengthy examinations. Private doctors spent more time with patients, they said, only to collect higher fees, whereas government doctors provided care that was technically appropriate. But what the PHC doctors considered appropriate treatment, clients often considered inadequate or ineffective. The PHC doctors, they said, did not examine them properly or give them good-quality medicines. Our impression was that whereas private doctors were dispensing excessive and perhaps unnecessary drugs to impress patients, the government doctors were giving patients only a few tablets, usually enough for only one day, to avoid wasting medicines. Thus there were large gaps between what the PHC doctors considered to be appropriate treatment and what the patients expected from the government service.

We were also interested in learning whether clients' perceptions of government services varied by client characteristics. Differences in responses by educational level, economic status, and social status were minor, suggesting that the PHC staff exhibited no systematic bias toward poor or illiterate clients (Table 3.7). The only background characteristic that showed significant differences was again place of residence: Women from the PHC/SC villages rated all aspects of service more highly than did women from remote villages. It could be that the health staff were more familiar with, and hence more cordial toward, clients from the PHC/SC villages. We know that workers were not able to spend much time in the remote villages because of the distance and difficulty of traveling to them. Similarly, patients who came to the PHCs or SCs from remote villages and did not find a doctor in attendance were more likely to be disappointed with the service than were those who came from nearby localities.

Table 3.7: Satisfaction with government services, by client's background characteristics: Ahmednagar District, Maharashtra, 1994

Characteristic	(No.)	Effective treatment (%)	Medicines available (%)	Examined properly (%)	Doctor available (%)
Residence	(673)	60	58	68	66
PHC/SC villages	(350)	50	49	58	54
Other villages					
Mother's education	(405)	54	58	63	64
Illiterate	(618)	59	53	67	62
Literate					
Economic status	(689)	54	54	65	62
Poor	(334)	62	57	67	63
Not poor					
Social status	(328)	55	56	69	65
SC/ST	(695)	57	55	63	61
Other castes					
Total	(1,023)	56	55	65	62

PHC/SC = primary health center or subcenter; SC/ST = scheduled caste or scheduled tribe

Summary and Conclusion

The data presented in this chapter suggest that the quality of the government's family welfare services, both its technical aspects and service delivery process, need considerable improvement. Greater attention needs to be paid not just to the provision of supplies and equipment, but also to clients' perceptions and constraints.

Service quality is not a tangible product. It is generated at the time of service delivery, through a range of interactions between the client and service provider. The degree of communication between the two largely determines how favorably the client regards the service. Therefore, any barrier to that communication-such as the distance between the client's home and the center, the client's inability to understand the provider's message, or the provider not taking enough time to communicate effectively-are detrimental to service-delivery quality. A strategy aimed at improving service quality needs to take such barriers into account and develop approaches to ensure maximum communication with clients. The strategy adopted for immunization services in the study area, for example, seems to a considerable extent to have achieved this goal. Similar approaches are needed to improve the quality of other services.

The three dimensions of service quality-process quality, technical quality, and client satisfaction-have to be treated as related but distinct entities. A worker spending less than five minutes during a home visit may exhibit poor process quality, but the client may find the length of the visit satisfactory. Similarly, a PHC doctor may provide technically sound curative care, but patients may not be satisfied with it. Therefore, while deciding on an intervention for improving service quality, program managers must assess its potential impact upon on all three dimensions of quality.

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