

Iyer, Aditi; & Jesani, Amar. : Barriers to the Quality of Care: The Experience of Auxiliary Nurse-Midwives in Rural Maharashtra. : In Improving Quality of Care in India's Family Welfare Programme edited by Michael A. Koenig and M.E. Khan. Population Council. 1999. p.210-237. ISBN 0-87834-099-8.

**Barriers to the Quality of Care: The Experience of Auxiliary Nurse-Midwives
in Rural Maharashtra**

Aditi Iyer & Amar Jesani

The notion of quality in the public health system is becoming increasingly an issue for policymakers and planners in India. The Eighth Five-Year Plan identified the poor quality of family welfare services as one of the factors hindering the achievement of a lower birth rate (GOI, Planning Commission 1992, p. 333). More recently, the Indian government has outlined elements of a quality - oriented, or quality - focused, approach in the Reproductive and Child Health Programme (GOI, MOHFW 1996).

As a concept, quality is attuned to the needs and satisfaction of the users of health services. By that token, a quality approach lends itself easily to the fulfillment of desired outcomes, whether these are measured by better health status or improved demographic indicators. Such a result is possible only when quality efforts are sufficiently backed up by adequate and rationally distributed infrastructure and material resources. The relationship between quantity and quality is best expressed at the ground level. This chapter reflects these ground realities from the perspective of auxiliary nurse-midwives (ANMs) in Maharashtra.

ANMs are auxiliary workers employed by the district administration to occupy the lowest rung of the public health bureaucracy. The World Health Organization has broadly defined auxiliary workers as technical workers in a particular field who have less than full qualifications (WHO 1961, p. 4). India's Second Five-Year Plan described the role of auxiliary health workers as supplementing the contributions made by doctors and other highly trained personnel for promoting preventive and curative health activities (GOI, Planning Commission 1956, p. 540). In their capacity as technicians, vaccinators, and assistant midwives, auxiliary workers support both the medical and the nursing professions. Therefore, auxiliary workers derive their legitimacy from their

interactive relationship with professionally trained personnel, and they derive their effectiveness from the network of physical and professional support structures to which they belong.

The role of ANMs in India has changed markedly over the past four decades. ANMs were initially seen as assistants to midwives in maternal and child health (MCH) centers. All of this changed during the 1960s and 1970s. Family planning was integrated with MCH activities and projected as a program deserving the highest priority (GOI, Planning Commission 1968). The committee appointed to review the staffing pattern and financial provision of the Family Planning Programme, now called the Family Welfare Programme, recommended a system of targets and incentives and identified ANMs and other village-level workers as agents for the popularization of the program (Mukherjee Committee 1966).

Further discussions on integrating the functions of the primary health centers (PHCs) and of village-level health workers led to the formation of a full-fledged Committee on Multipurpose Workers in 1972 at the initiative of the Executive Committee of the Central Family Planning Council. The committee transformed ANMs and the host of malaria workers into multipurpose workers (MPWs). ANMs were now required to provide child health services and primary curative care to villagers. Thus ANMs have long ceased to play the peripheral role conceived for them at the time of national independence. Their heightened accountability and increasing visibility in the community have transformed them into key workers at the interface of health services and the community. The realization of this potential, however, is dependent upon support systems such as preparatory training, ongoing professional and interpersonal support, facilities, and equipment. This chapter reviews and evaluates the adequacy and quality of these systems.

According to national norms, a PHC should serve a population numbering 30,000 under the leadership of a medical officer (doctor). Even if a PHC has two medical officers, it still has only one doctor for 15,000 people. In view of the demands of their work, these doctors are hardly in a position to provide constant supervision to ANMs and male health workers posted at the subcenters. The problem is exacerbated by vacancies in the post of medical officer. This absence of a team leader effectively forces the ANMs to carry out the day-to-day work of the subcenter in an independent fashion. Thus, contrary to their status as auxiliaries, ANMs become de facto independent workers-quasi doctors-with neither the recognition nor the wherewithal necessary to play such a role in the health service and the community.

The situation of ANMs is rendered more complex because it incorporates a social dimension. Although both ANMs and male workers work under the jurisdiction of the district health administration, ANMs have several inherent disadvantages. First, although they are registered with the Nursing Council and their affiliation with the nursing profession provides them with a better legal status than male workers (who are unregistered), ANMs are only paraprofessionals by training. Therefore they do not enjoy the same status as fully trained nurses and find themselves marginalized within the council. Second, the cadre of ANMs is composed exclusively of women, unlike the nursing profession, which allows the participation of males, however marginal that participation might be (in 1990, only 4 percent of nurses registered with the Maharashtra Nursing Council were men). The inequalities rooted in ANMs' gender thus add another dimension to their subordinate status. Their affiliation to nursing carries a negative social image, in view of the specific requirements of their work. ANMs bear the additional burden of a reputation—a stereotype—that portrays them as immoral women, and this represents a major handicap when they work with rural communities (Jesani 1990).

The gender differential is also manifested in a division of labor between male and female workers. Whereas male workers are expected to assume an active role in controlling malaria, tuberculosis, and other communicable diseases, ANMs are principally responsible for MCH activities. One reason for this division of labor is undoubtedly the carryover effect of their previous functions. Its outcome, which draws its ultimate justification from the "natural functions" argument, is striking. On the one hand, the sex of the male health worker and his use of laboratory slides and other "clinical" devices conspire to project his image in the community as a malaria "doctor" (Jesani 1990); on the other hand, the female worker is regarded merely as a "nurse bai" (bai being a common form of addressing women in the area). The difference is not merely a matter of semantics; the associations suggest that the male worker is more competent than his female counterpart.

In addition, unlike her male counterpart, an ANM is expected to maintain the subcenter. In fact, the female worker's responsibility with regard to the subcenter goes beyond hygiene. She is expected to stay there and run it on a day-to-day basis. This responsibility, however, which is not entrusted to the male worker, is not matched with administrative authority over the subcenter. As a result, the male worker does not report his activities to the female worker or even necessarily feel accountable to the subcenter.

We recognize that the axes around which ANMs' experiences revolve are the quality of their relationship with the community, their positioning in the occupational hierarchy of the health services, the nature and location of their health work (whether in a PHC or subcenter, a developed or underdeveloped district, an accessible or remote area), and their support mechanisms (professional, infrastructural, and personal). An examination of how these diverse elements interact with one another and how they influence the quality of care rendered by ANMs forms the core of this chapter.

Methodology and Sample

Our study is designed to generate an understanding of the socioeconomic background of ANMs, their role expectations, performance, satisfaction, and problems from the health system and the community. It focuses on ANMs not as an operational category, but as women in the hierarchical structure of the health services, and attempts to document the many ways in which the health system affects their lives and experiences.

The study is set in the four districts of Maharashtra that represent its major geographic divisions: Ratnagiri District in Konkan, Pune District in western Maharashtra, Beed District in Marathwada, and Wardha District in Vidarbha. These districts are also representative of particular levels of socioeconomic development as measured by the Centre for Monitoring the Indian Economy's (CMIE's) index of socioeconomic development. [1] In the mid-1980s, Pune District, with an above-average index of 175, was considered to be an industrially advanced district; Wardha and Beed Districts, with average figures of 85 and 50, respectively, were moderately developed; and Ratnagiri District, with a below-average index of 35, was classified as a backward district (CMIE 1987).

With the purposive selection of three talukas (subdistricts) in each of these districts and two talukas in the tribal belt of Pune, and with the random selection of two PHCs per taluka from a list provided by the Directorate of Health Services, we identified 27 PHCs for participation in the study. Using an open-ended interview schedule, we interviewed all ANMs working at the PHC and each of the subcenters. The interview schedule was designed to generate qualitative data and to provide respondents with the opportunity to express themselves freely. In addition, we selected five ANMs in each district for in-depth interaction over a maximum period of three days. This enabled the female researcher, who accompanied ANMs on their rounds, to engage in lengthy discussions and witness health activities undertaken at the village level. She was

aided by an interview guidebook designed to help generate the same range of information as the interview schedule but in greater depth. Data collection commenced in the winter of 1990 and lasted until midsummer of the following year.

The total sample listing consisted of 210 ANMs; however, only 183 ANMs could be interviewed. The remaining 27 were on leave (maternity or extended leave), in training, simply unavailable, or their posts were vacant. Among the 183 respondents, 68 were from Pune (42 from six PHCs in nontribal areas and 26 from three PHCs in tribal areas), 50 from six PHCs in Wardha, 36 from six PHCs in Beed, and 29 from six PHCs in Ratnagiri. Of these 183 ANMs, 41 were posted at their PHCS, 140 were in subcenters, and two were enrolled in training courses at the district headquarters.

Findings

Our analysis focuses first on the social and economic backgrounds of the ANMS, their training as health providers, and their professional and interpersonal support within the health care system. Subsequent sections examine the political and social conditions at the PHCs and subcenters, the quality of their facilities, deficiencies in the performance of the ANMS, and problems caused by family planning targets.

Socioeconomic Background of the ANMs

ANMs are accepted into training schools at a young age (an average of only 20.5 years in our study) (Table 11.1). By the time they graduate from the training schools and receive their first posting in PHCs and subcenters, they are two years older (the mean age in our study was 22.7 years). More than two-thirds of all ANMs in our sample were single when they began working in the rural health system. Instead of using place of birth as the sole criterion for determining their backgrounds, we sought information on the places where they had studied to understand their exposure to rural or urban life. Accordingly, we classified ANMs who were born in rural areas and had their primary and secondary education in rural areas as having rural backgrounds. The rest, by default, were considered to have urban backgrounds. Two-thirds of the ANMs had rural backgrounds, and a third were from semi-urban or urban areas. The one-third of ANMs with urban backgrounds-mainly Christians and Muslims-had had little exposure to rural life before their recruitment. Therefore, the ANMs brought

with them youth and inexperience, which made working in conservative and patriarchal social settings an especially daunting challenge.

Table 11.1: Profile of ANMs: Rural Maharashtra, 1990-91

Socioeconomic indicators	
Mean age at beginning of training (years)	20.5
Mean age at first posting (years)	22.7
Marital status at first posting (%)	69
Unmarried	25
Married	6
Separated, deserted, or divorced, widowed	
Location of current posting (%)	72
In native district	28
Outside native district	
Rural versus urban background (%)	66
Rural	34
Semiurban or urban	
Community of origin (%)	34
High caste	38
Middle caste	19
Scheduled caste or tribe	9
Christian or Muslim	
Education (%)	10
Some secondary or high school	67
Matriculation	24
Intermediate license, junior college, or graduation	
(No. of ANMs)	(183)

Note: Percentage may not add to 100 because of rounding

ANM = auxiliary nurse-midwife.

To be effective, ANMs must establish a strong, credible presence in the community. Because they are seldom posted in their native villages (although nearly three-fourths of those in our sample were posted within their native districts), they are expected to build rapport with strangers. Nor is this a one-time expectation. Transfers, which occur every four years on average, ensure that ANMs spend a large part of their career attempting to establish amicable relations with largely unfamiliar communities.

Nearly three-fourths of the ANMs in our sample belonged to upper and middle castes, nearly one-fifth belonged to lower castes (scheduled castes and tribes), and fewer than one-tenth were Christian or Muslim. Middle-caste Hindus dominated our sample, accounting for 38 percent. Scheduled castes were over represented (nearly 18 percent as compared with 11 percent in the state, according to the 1991 census), and scheduled tribes were underrepresented (at nearly 2 percent as against 9 percent in the state). Similarly, within the group of minorities, Muslims were underrepresented (nearly 2 percent as against the 1981 census figure of 9 percent) and Christians over represented (nearly 8 percent as against the 1981 census figure of 1 percent). The representation of lower castes (chiefly scheduled castes) and upper castes, as evidenced by the caste variation among ANMs of different ages, has increased since 1980; the percentages of minorities (Christians and Muslims) and middle castes has correspondingly declined.

Two-thirds of the ANMs in our sample had completed their secondary education, a fourth had earned an intermediate certificate or attended a junior college, and the remainder had received some secondary education. Nearly a third of the sample had acquired additional training, mostly in clerical skills such as typing and stenography.

Although a majority of the ANMs came from middle and upper-caste families, many came from somewhat precarious socio-economic situations. At the time of recruitment, 64 percent of the ANMs from rural areas belonged to landless and poor peasant families. Further, the monthly cash income of the ANMs' fathers averaged Rs 738, the amount varying only slightly across the four study sites. Worsening the precarious financial position of the family were economic dependencies in the household at the time of the ANMs' recruitment: on average, three to four dependents per earner or productive family member. This was due in part to the fact that at the time of recruitment, one in four of the ANMs came

from households in which the father either had died or was economically inactive.

Consequently, the ANMs' wages contributed important economic stability to their households. One-fifth were the sole earners in their families, and one-third of all ANMs commanded higher wages than their husbands, fathers, or brothers (in the absence of a father) (Table 11.2). The ability to alleviate the economic hardship of their households motivated many of these women to join the government service. Over time, the ANMs encountered numerous obstacles in their work but could not dare to contemplate a job switch. Their dependence on their current employers was heightened by a realization that avenues of alternative employment were limited.

Table 11.2: ANM's current economic role: Rural Maharashtra, 1990-91

Role	Unmarried ANMs		Ever-married ANMs		All ANMs	
	%	(No.)	%	(No.)	%	(No.)
Sole earner	8	(3)	22	(32)	19	(35)
One of two earners	37	(14)	32	(46)	33	(60)
Earning more than husband or father	3	(1)	7	(10)	6	(11)
Earning as much as husband or father	16	(6)	26	(37)	24	(43)
Earning less than husband or father						
No knowledge or cash income not earned	37	(14)	14	(20)	19	(34)
(No. of ANMs)	100	(38)	100	(145)	100	(183)

Notes: Percentage do not add to 100 because of rounding. Brother's income considered if father had died.

ANM = auxiliary nurse-midwife.

ANMs did not find many options in the labor market prior to their employment in the Family Welfare Programme. Indeed, the role of choice in their decision to work as ANMs was small. The most favored occupation-one with fixed hours of duty, an attractive salary, job permanence, and a reassuringly large female representation- was teaching, which nearly three out of four perceived as a concrete option after their matriculation but were unable to achieve. Moreover, four-fifths would have liked to pursue higher studies but were prevented from doing so by the fragile economies of their households. All these factors contributed to the vulnerability of ANMs and, consequently, their bargaining power vis-a-vis the health bureaucracy and the community.

Training

In the 1950s and 1960s, training courses for ANMs focused on mid-wifery and MCH, with 9 out of 24 months earmarked for those subjects. In 1973 the government integrated the various functions of the health services, changing the ANMs' role (Kartar Singh Committee 1973). Two years later, a government committee called for an expansion of their training to prepare them for multipurpose health work (Srivastava Committee 1975). In response, the Indian Nursing Council approved an expanded syllabus in 1977 (Indian Nursing Council 1977). However, the expansion in training requirements was not matched by a longer period of training. On the contrary, with the new syllabus came the decision to reduce the training period from 24 to 18 months, which some nurse trainers consider inadequate to prepare ANMs for work at the village level (Deodhar 1994). Compromises in the length and quality of training affect recruits' confidence and efficiency (Prakasamma 1989).

In Maharashtra the training standards received another setback in the 1980s, when vacancies in the public health system in rural areas generated an urgent demand for ANMs there. A frenzied attempt to recruit women for the job ensued. By the end of the decade, with 7,471 additional ANMs pressed into service, the cadre had swollen to twice its earlier size. This came about not by a redistribution of the 3,797 fully trained ANMs from the non-governmental sector (who represented nearly one-half of all registered ANMs), but rather by expanded enrollments in training schools and by the induction of unregistered personnel. The unregistered ANMs accounted for 71 percent of all recruits during the 1980s (Iyer and Jesani 1995). This trend is reflected in our data. Three out of four ANMs currently employed were recruited during the period 1981-91. Among that group, 42 percent were still unregistered with the Nursing Council at the time of our interviews.

The chief architect of this trend was the state government. In 1982 it introduced a so-called Step Ladder Course, which further reduced the training period from 18 to 12 months and located nearly all its instruction in the field instead of the training school. Given the reduced stains of this course, it failed to win the immediate approval of the Maharashtra Nursing Council. Eventually the Nursing Council and the state government worked out a compromise: the Council agreed to register probationary workers provided they were put through another six months of training and examinations at the end of it, and the state instituted Step Ladder Promotional Courses at several training centers and began sending its workers to them.

This reduction in minimal training standards and its subsequent legitimization has had several far-reaching implications. First, by not providing enough time for students to assimilate the course material, it inadequately prepares young and inexperienced women for their jobs. Most ANMs trained under the Step Ladder Course complained to us that too much information had been imparted in too short a time. Second, ANMs' registration is now controlled by two agencies, the state bureaucracy and the Nursing Council. For ANMs, who are considered to be temporary workers until they are registered, the politics surrounding their formal acceptance by the health system only intensifies the insecurity that their deficient training has engendered. Their temporary status prevents them from receiving wages commensurate with their full-time work, and their eligibility for basic employee benefits is subject to the whims of the district-level administration.

Although the 18-month MPW course is superior to the Step Ladder Course, it places an unwarranted emphasis on hospital-based and non-nursing activities, even though ANMs' role requires an orientation to outreach work. A radical reorientation of the content and pedagogy of training is needed not only in the Step Ladder Course but also in the 18-month MPW course.

In sum, young and vulnerable women who aspire to become ANMs receive an unrealistic preview of their future career in the training schools. In shielding them from responsibilities, nursing schools fail to build trainees' confidence, a vital asset in unassisted health work, which requires independent decision-making. Moreover, their cloistered existence in the school does little to prepare them for work in unfamiliar, often uninviting, village communities. The threat of sexual harassment and abuse mars the careers of most ANMs, but trainees are not informed of their legal rights or channels of redress. In the end, ANMs learn their lessons of village-level health work not in training schools, but while negotiating the numerous hurdles they encounter in everyday life.

Professional and Supervisory Support

Once ANMs are out of training schools, they need professional support to help them carry out the tasks assigned to them. This need is particularly acute in sub-centers, where ANMs are deprived of the re-assuring environment of a health campus. ANMs need to go through periodic retraining programs and ongoing, continuous supervision.

In the PHC setup, the medical officer and health assistants (male and female) are responsible for supervising ANMs as well as male MPWs, dais (traditional birth attendants), and community health volunteers (CHVs). Lady health visitors (LHVs), the female supervisors of ANMs, are no more than experienced paramedical staff who are given additional training for six months. Besides supervising ANMs, their duties include providing guidance to ANMs, strengthening their knowledge and skills, helping them to plan and organize their activities, making weekly visits to subcenters, and making home visits to observe and guide them in their day-to-day activities. Medical officers are also expected to make weekly visits to the subcenters and attend clinics organized there to examine and treat difficult cases. They are also expected to hold monthly staff meetings at the PHC to evaluate workers progress and suggest improvements. During those meetings, they convey information from their meetings with the district health officer, inform staff about campaigns and surveys proposed by the district-level administration, monitor existing activities, and outline work schedules for the next month. Sometimes they accompany this with a short lecture on a health activity of their PHC.

Supervision should consist not merely of technical guidance but also of moral support and encouragement. In reality, this does not happen. In one of the PHCs, for example, ANMs belonging to the same caste as the medical officer were given preferential treatment; in another, the medical officer's wife, who was an ANM, did no work, but was not reprimanded. An ANM in Wardha was convinced that her medical officer was penalizing her for her assertiveness by refusing to cooperate with her. Once, she told us, he kept putting off performing a tubectomy for a woman she had recruited. Another time, when there were no empty beds in the ward, he ordered her to bring a cot from home for one of her sterilization cases and after the operation refused to let her take it back home in the PHC's jeep. His behavior made her job especially difficult.

The hierarchical relationship between medical officers and ANMs erects barriers between the two functionaries that reduce whatever bargaining power ANMs

might otherwise muster. An authoritarian medical officer in Wardha required his staff to stand at attention while addressing him. He discouraged staff unity by inviting tattling, which created an atmosphere of mistrust. ANMs were sometimes expected to help the medical officer in his private practice or to manage the clinic for outpatients with the compounder (medicine dispenser) in the medical officer's absence. An ANM who was separated from her husband reported the medical officer made sexual advances toward her, suggesting that they "have fun" at a lodge in the town. When she refused, he retaliated by issuing a memorandum critical of her performance. Countering these reports of harassment, however, were reports by other ANMs who gratefully acknowledged interventions by their medical officers that helped resolve difficult confrontations with community leaders. One of the medical officers even reduced an ANM's work load when she was undergoing a personal crisis.

Another criticism voiced by our informants was that their supervision consisted of little more than monitoring contraceptive-acceptor targets and making perfunctory inspections. Their supervisors treated the achievement of targets as the only indicators of performance, zealously emphasizing them in individual interactions and in monthly meetings at the PHC. This finding is echoed in other studies (Durgaprasad et al. 1989; IIHMR 1991; Nichter 1986). Indeed, monthly meetings often became trials at which ANMs were publicly reprimanded for not completing targets assigned to them. This pressure intensified toward the end of the fiscal year (in March). As a result, the ANMs were sometimes driven to falsifying their records to exaggerate their accomplishments. They expected to gain little useful information from the monthly meetings; in fact, few looked forward to them, and many set aside their routine health activities for one or two days before those encounters to complete their records.

The content of supervision ranged from active encouragement to indifference, non-cooperation, and even antagonism, depending on the medical officer's attitude to nurses in general and individual ANMs in particular. Most medical officers issued reprimands more often than praise. Some ANMs received no supervision at all. Those in the more remote subcenters complained that the LHVs rarely visited them because they were put off by the prospect of walking long distances on their own. We came across some instances in which ANMs worked in close association with their health assistants, but these were the exception. In general, the intent, consistency, and quality of supervision left much to be desired.

Social Conditions and Vulnerability of ANMs

ANMs are posted either at a PHC or at any of the subcenters under its jurisdiction. Some 77 percent of the ANMs in our study were posted at subcenters, while 23 percent were working in PHCs, a distribution not markedly different from the average for the state of Maharashtra as a whole. PHCs tend to be located in more developed villages, whereas subcenters are located in remote villages or in outlying areas of larger villages. At the PHCs, ANMs work within the structure of a health campus or at least have a visible backdrop for their work in the community. This includes the presence of the health team, headed by a doctor and health infrastructure with facilities for a daily outpatient department. In contrast, ANMs posted to subcenters work unassisted, receiving only transient professional guidance from the medical officer or female health assistant. The presence of a medical officer at a weekly clinic organized by the ANM at the subcenter, though mandatory, is a rarity. Therefore, rather than operate clinics at the subcenter building, ANMs tend to deliver health care to their communities through house-to-house visits. While taking stock of the activities conducted by ANMs on the day of our interview and the time spent on each activity, we found that slightly more than one-half (55 percent) of the ANMs posted at subcenters made home visits, compared with only one-quarter of those posted at PHCs (Table 11.3). Both groups of workers spent an average of four hours, or three-fifths of their working day, on house-to-house visits.

Table 11.3: Time utilization of ANMs on the last working day prior to interview: Rural Maharashtra, 1990-91

Location and activity	ANMs		Average duration of activity (hours:minutes)	Percentage of average workday
	%	(No.)		
<i>PHCs</i>				
Home visits	24	(10)	3:47	52
Travel	10	(4)	1:49	25
Outpatient departments or clinics	73	(30)	4:56	68
Record writing	22	(9)	1:40	23
Universal Immunization Programme camps	12	(5)	3:18	46
Deliveries	20	(8)	3:11	44
Meetings	7	(3)	4:50	67
Transporting family planning cases	--	(0)	--	--
Other activities	15	(6)	4:00	55
Not applicable or on leave	2	(1)	--	--
		(41)	7:13	

(No. of ANMs) and average workday				
<i>Subcenters</i>				
Home visits	55	(77)	4:10	62
Travel	41	(57)	2:03	31
Outpatient departments or clinics	15	(21)	4:05	61
Record writing	30	(42)	2:21	35
Universal Immunization Programme camps	16	(22)	3:58	60
Deliveries	6	(8)	4:09	62
Meetings	9	(13)	5:01	75
Transporting family planning cases	3	(4)	2:45	41
Other activities	17	(24)	2:34	38
Not applicable or on leave	5	(7)	--	--
No response	1	(1)	--	--
(No. of ANMs) and average workday		(140)	6:40	
<i>All locations</i>				
Home visits	48	(87)	4:08	60
Travel	34	(61)	2:02	30
Outpatient departments or clinics	28	(51)	4:35	67
Record writing	28	(51)	2:17	33
Universal Immunization Programme camps	15	(27)	3:51	56
Deliveries	9	(16)	3:40	54
Meetings	9	(16)	4:59	73
Transporting family planning cases	2	(4)	2:45	40
Other activities	17	(30)	2:51	42
Not applicable or on leave	4	(8)	--	
No response	1	(1)	--	
(No. of ANMs) and average workday		(181)	6:50	

Notes: Numbers of ANMs exclude those in training. The average duration of individual activities in each of the subgroups does not add up to the average work day because of multiple responses.

ANM = auxiliary nurse-midwife; PHC = primary health center.

The mandated population size of an ANM's territory is 5,000 (3,000 in tribal and hilly areas). Among the ANMs in our study it was 4,565, somewhat less than the average of 5,168 for the state in 1991. However, most ANMs were without transport and had to walk long distances under the blazing sun, sometimes through desolate and dangerous terrain. One-third of all ANMs spent an average of two hours, or a third of their workday, commuting between their workplace and the villages under their charge. Among those assigned to subcenters, 41 percent spent that much time commuting, as compared with 10 percent among

those posted at PHCS. This travel time was in addition to the time it took ANMs who lived outside the village where they were posted to reach the subcenter.

ANMs have numerous reasons for preferring not to live in their subcenters. Personal safety is a major concern, especially for unmarried and separated women, who are most vulnerable to sexual harassment. All ANMs, particularly those living in subcenter villages, require secure living quarters. However, a distinct bias favors ANMs posted at PHCs: 58 percent of ANMs posted at PHCs, as compared with only 17 percent of those posted at subcenters, were provided with government quarters, whether they occupied them or not (Table 11.4). Despite the shortage of living quarters, 59 percent of all subcenter ANMs were residing in the villages to which they were posted (data not shown), and three out of four of them were doing so without being provided with quarters.

Table 11.4: Provision of government accommodation: Rural Maharashtra, 1990-91

Type of accommodation	PHC ANMs	Subcenter ANMs	All ANMs
Government quarters	58	17	26
No government quarters	42	83	74
Total	100	100	100
(No. of ANMs)	(41)	(140)	(181)

ANM = auxiliary nurse-midwife; PHC = primary health center

In the course of their health work, ANMs are exposed to community politics and prejudices. As we have mentioned, the disadvantages already imposed on women by a patriarchal and caste-based social system are compounded in their case by the association, in many Indians' minds, of the nursing profession with pollution and disrepute. Because ANMs' work requires them to speak openly about contraceptives, to interact with men as well as with women, and to keep itinerant schedules, they are viewed as women of loose morals. This negative social image and their low status within the health system make them easy prey to sexual harassment—a prospect that plagues tavern throughout their careers.

Unmarried or maritally disrupted women, who are believed to be unspoken for or who do not visibly display the protection of their families, are particularly vulnerable to sexual harassment. A number of the ANMs in our sample recalled how their social position in the community changed after their marriage. The lewd propositions and taunts that came their way before marriage stopped as soon as they had the protection of their husbands. This was particularly the case in Wardha District, where social relationships tended to be more feudal. One of the ANMs in Pune District, a young divorcee, also recalled an unpleasant incident involving a man who approached her late one evening for a medical certificate. It soon became apparent that he had an ulterior motive; had she not slammed the door shut against him, she believed he would have molested her.

Another kind of harassment emanates from village leaders, who demand special services, such as immunizations, at their homes. In one village, a *sarpanch* (elected village head person) kept a close eye on the ANM; another insisted that he be allowed to inspect her records; yet a third badgered the ANM because she did not dispense vitamin tablets (a difficult task since she had no supplies); and a fourth made unjustified complaints to the district health officer before ordering the ANM to leave the village and never return.

A third pretext for mistreating ANMs is their caste affiliation. In Wardha several ANMs from lower castes mentioned that they faced overt discrimination. One of them, a 36-year-old neo-Buddhist, reported that higher-caste groups who were dominant in the area gave her tea in broken cups, made her sit on a sack on the floor, did not allow her to touch them, and before her own eyes would throw away the medicines she gave them. Conversely, a few of the ANMs from higher castes in Ratnagiri were visibly uncomfortable dealing with people of lower castes.

When an ANM arrives in a new village, she usually undergoes a period of testing by certain groups in the community (often youths), who accost, tease, or even sexually harass her. One of the older ANMs in Ratnagiri recalled the problems she had in her first posting. Her clients would become agitated over the onset of fever after an immunization. When she approached them with family planning information and contraceptives, they would say: "Why are you bringing us what you have left over?" or "Why don't you use them yourself?" An ANM in Wardha described the early days of her stay in the subcenter village to which she was currently posted. People would stone her house in a bid to drive her out, so that the previous ANM would return. Young boys would drive to the steps of the subcenter on their bicycles and frighten her and her young daughter. The harassment lasted for a year and a half.

The Quality of PHC and Subcenter Facilities

Ideally, PHCs should be staffed with two ANMs, one handling work within the PHC itself, and the other conducting outreach activities in the community. Disguised understaffing exists, however, the magnitude of which can be gauged from state-level statistics compiled by the Directorate General of Health Services. In 1991, Maharashtra's 1,650 PHCs, which should have had 3,300 ANMs, had a shortfall of 1,376, a figure more than 14 times higher than the number of vacancies reported in official statistics that year. Under such circumstances, ANMs, many of whom are forced to handle the jobs of two individuals, naturally feel overburdened.

Despite an increase in the number of PHCs during the 1980s, the provision of buildings to house the new centers came only later. In 1987 fewer than one-half of the PHCs had regular buildings, but by late 1993 nearly all of them did (GOI, CBHI 1988-94; GOI, DGHS 1988-94; GOI, MOHFW 1988-94). In contrast, only about one-half of the state's subcenters had regular buildings by late 1993. The PHCs and subcenters remain inadequately equipped and supplied. These problems affect the system's capacity to provide health care services of satisfactory quality, and ANMs bear the brunt of those problems.

To perform their work, the ANMs assigned to subcenters require not only secure living quarters but also a well-constructed building and essential equipment and supplies. Their physical working conditions fall far short of that ideal. Fewer than one-fourth (24 percent) of the ANMs posted at subcenters in our study had a specially constructed building. Thirty percent either had no subcenter space at all or had to conduct health activities from their homes, and the remainder worked in a rented room or in space provided by the *panchayat* (village council) or local government (Table 11.5). Of the 118 structures used for subcenter activities, one-third were poorly constructed. More than a quarter of them lacked electricity, and as many as 70 percent did not have a piped water supply (data not shown).

Table 11.5: Subcenter facilities, essential furniture, and basic equipment: Rural Maharashtra, 1990-91

Facilities and equipment	Percentage of ANMs reporting
--------------------------	------------------------------

Facilities	46
Rented room/other government premises	24
Specially constructed building	16
No subcenter space	14
No separate building; run from ANM's house	
Basic equipment or furniture	79
Stove	64
Fetoscope	64
Weighing machine	45
Chair/stools	39
Table	35
Autoclave	32
Cupboard	31
Delivery/examination table	29
Bench	21
Stethoscope	16
Blood-pressure instrument	
(No. of ANMs posted at subcenter villages)	(140)

Note: Percentages do not add to 100 because of multiple responses.

ANM = auxiliary nurse-midwife.

Although subcenters constructed by the government were better than makeshift rental arrangements, they were usually located at the village periphery or outside the protection of the main village cluster. ANMs were afraid to live in those structures unless, they had their families with them. Rented rooms that served as subcenters were located within the villages but were often dark and dingy, and most offered no privacy to the ANM or her patients.

The subcenters were not adequately or uniformly equipped. For example, a common item is the stove, because it has many general as well as health uses. Yet, out of the 140 ANMs posted at the subcenters, one in five lacked this basic amenity. Apart from the stove, the only other instruments we found in most of the subcenters were a fetoscope, either as part or independent of a delivery kit (64 percent), and a weighing machine (64 percent). Certain essential instruments

for preventive and curative care were found in fewer than half of subcenters. These included the autoclave (35 percent), stethoscope (21 percent), and instrument for measuring blood pressure (16 percent). Essential items of furniture such as chairs or stools (45 percent), cup-boards (32 percent), a delivery/examination table (31 percent), and a bench (29 percent) were also found in a minority of instances.

These inadequacies affected the ability of ANMs to work with any degree of confidence in the community. Three-fourths of all ANMs in our study had multiple complaints about their working conditions. Besides being overburdened, they cited the inadequacy of facilities, equipment, and medicine stocks. They also complained about the lack of proper accommodation and inadequate transport facilities.

ANMs are expected to conduct at least half of the deliveries in their areas; but, by our estimates, ANMs based at PHCs and subcenters conducted no more than 19 and 13 percent of deliveries, respectively. They attributed their inability not only to their sense of inadequacy, due in part to their deficient training in this area, but also to the limited facilities available to them and their having to function in isolation. That is why two-thirds of the deliveries they attended took place in the women's homes, in most cases under far from ideal conditions.

Having to leave their subcenters for this work exposed them to sexual harassment. Stories of the experiences of ANMs who had been drawn out of their homes at night under false pretenses, only to be molested or raped, spread among ANMs and were lodged in their collective experience. As a result, the ANMs tended either to shun health work after 8:00 p.m. or to live outside their assigned villages so that they would not be expected to make night visits. Many ANMs refused to budge after dark unless their attendants or CHVs could accompany them.

Divergent Health Priorities

The ANMs in our study, including those posted at PHCS, conducted an estimated 15 percent of all deliveries in their areas, fulfilled 64 percent of their targets for sterilization and 65 percent of their targets for intrauterine device insertions, and reported that they were providing curative services to 68 percent of all those who approached them. If ANMs could do all the work expected of them, they would indeed be regarded as important workers at the village level. The reasons why they cannot do this lie in their assigned priorities, their

resulting allocation of time, and the highly deficient support mechanisms available to them.

The Family Welfare Programme has steadily overshadowed all other programs and services of the primary health care system. Changes in health policy affect ANMs directly. They are expected to implement health policies through their activities at the village level. By virtue of their position in the community, however, ANMs faced also with demands for other health services by the people they are supposed to help. The government and villagers do not always share the same priorities, and, in trying to accommodate both, ANMs often end up caught in the middle.

We asked the ANMs we surveyed to rank eight health activities from the perspective of the government and the people. Their combined ranking reveals a conflict between the community members, whose highest priority is curative services, and the government, whose perceived priority remains family planning.

Government priorities directly affect budgetary and financial allocations, which in turn affect the provision of equipment and supplies. As a result, PHCs may experience gross deficiencies in essential drugs but are invariably well stocked with contraceptives (ICMR 1991). This deficiency not only limits the ANMs' ability to provide tangible services at the point of contact with the community but also reduces their credibility. "You don't give us medicines when we need them; why should we listen to you when you tell us about family planning?" was a refrain that the ANMs in our study were obliged to hear over and over again. To rectify the communities' perception of their role as superfluous and self-serving, they placed great emphasis on their curative work and less emphasis on their function as midwives.

ANMs attempted to honor as many requests for medicines as possible in an effort to gain acceptance in the community, a practice that has also been documented elsewhere (Paul, Singh, and Sharma 1988). Every year subcenters in Maharashtra receive an annual provision of drugs and supplies valued at only Rs 3,000. Despite that in-adequate level of support, ANMs posted at subcenters and PHCs in our study reported that they were able to provide curative care to an average of two-thirds of all clients who approached them.

Pressed for medications, the ANMs referred patients to the PHC, rationed their stocks by giving patients medicines in smaller doses than indicated, or simply turned them down. A few were driven to dispensing innocuous drugs or

placebos to satisfy clients. Others purchased and dispensed medicines in a private capacity. Inadequacies in drug provision-and ANMs' deficient training in drug use-thus threaten the rationality and quality of health care available from PHCs and especially from subcenters. This conclusion is reinforced by findings reported by Phadke and colleagues (1995) in Maharashtra and by Paul, Singh, and Sharma (1988) in Uttar Pradesh.

ANMs told us they hoped that their curative activities would have a positive effect on their family planning performance. To increase their credibility, most (64 percent) conducted antenatal care, deliveries, postnatal care, and immunizations (Table 11.6). And through all of this, ANMs continued to promote the economic benefits of small families (mentioned by 52 percent of the ANMs) or the health benefits to the women and their children of limiting their family size (mentioned by 39 percent). Accompanying these strategies were a host of monetary and material incentives they offered clients, including the provision of meals and snacks to the women and the relatives who accompanied them to the PHC, medicines and injections during and after sterilization, and a personal monetary contribution to augment the government's monetary incentive of Rs 130 for each sterilization.

Table 11.6: Strategies and material incentives employed by ANMs to motivate women to use family planning methods: Rural Maharashtra, 1990-91

Strategies and incentives	PHC ANMs	Subcenter ANMs	All ANMs
<i>Motivational strategy (% of ANMs using)</i>			
Building credibility through other health services	63	64	64
Promoting the ideal of a small family for nation's development	46	54	52
Advising women to have fewer children to protect their health	37	39	39
Building rapport, explaining things in identifiable terms	42	34	35
Providing monetary and other material incentives	7	19	16
Promoting the ideal of gender equality	5	9	8
Excluding men, targeting only women for motivation	5	5	5
Other methods	2	1	1
Motivation not required	5	0	1
Not stated	7	0	2
<i>Incentives given for sterilization (% of ANMs offering)</i>			
Meals or snacks for patient and relatives during stay	62	66	65
Medicines or tonics before, during, or after acceptance	57	57	57

Augmentation of sterilization incentive fee	29	39	37
Reimbursement of travel expenses	33	30	30
Other	10	7	7
(No. of ANMs offering incentives)	(21)	(74)	(95)
(Total no. of ANMs)	(41)	(140)	(181)

Note: Percentages do not add to 100 because of multiple responses.

ANM = auxiliary nurse-midwife; PHC = primary health center.

Interestingly, ANMs were reluctant to admit that they relied on incentives; a mere 16 percent did so at first. It was only when we asked them to outline the motivational strategy they had employed in their last case that they admitted having offered incentives. Nearly two-thirds had given their last client food, 57 percent had bought her medicine or an injection, 37 percent had topped up the regular motivation fee offered by the government with their own contribution of approximately Rs 200, and nearly a third had reimbursed the woman for her travel expenses.

The Burden of Family Planning Targets

Since their institution, family planning targets have become yardsticks by which ANMs are judged and accordingly rewarded or punished. The rewards consist of praise at monthly meetings of PHC staff, a cash prize, or a certificate from the district health officer. Punishment includes the withholding of an ANM's salary (sometimes for three months at a stretch), a reprimand in the presence of other staff at a monthly PHC meeting, a memorandum criticizing the worker's performance, and on rare occasions, termination of employment. ANMs tend to receive more punishments than rewards.

Targets, we were informed, worked wonders for some workers in more remote districts. Recruitment of one or two family planning acceptors often resulted in a desired transfer or extraordinary favor from the district administration. This saw several government servants-teachers, *gram sevaks* (village clerks), and talatis (revenue settlement officers) joining the fray and competing with ANMs for clients. Because they had no quotas to fulfill, however, they could afford to be extravagant. Some offered women as much as Rs 400 to agree to have a tubectomy. This set up a market economy at the village level, and women began

demanding a proper price for their impending sterilization. ANMs were now expected to make more out-of-pocket payments. They offered travel expenses for the women and their accompanying relatives in addition to food during the women's stay at the PHC. Some offered a six-month course of vitamin B complex injections following the operation. The most extraordinary request came from one woman's husband, who asked the ANM to take his wife's place while she was away at the PHC.

Targets distort what might otherwise become mutually beneficial relationships between ANMs and women in the community. This problem is particularly acute in areas ridden with competition for family planning acceptors. Many of the ANMs in our study inculcated a narrow perspective on women's health, regarding women primarily as reproducers and targets for acceptance. This view often contributed to the alienation of ANMs from the community.

Male leaders and youths used the ANMs' anxiety about meeting targets as leverage to establish political control over them or as a pretext for sexual exploitation. In one area, a gram sevak promised to recruit acceptors for an ANM if she would accompany him to a lodge in town. In another instance, the police *patil* (village official appointed to oversee law and order) wanted her to provide his sexual partner, an unmarried woman who had no children, with a Copper-T. When the ANM refused, he complained about her to the district health officer. An unmarried ANM recounted how the village sarpanch had approached her for an injection that would cause his pregnant sexual partner to abort the fetus. Since ANMs were not supposed to conduct abortions, she refused. He then complained to her supervisor. Instead of supporting her, the supervisor explained her behavior by saying that because she was unmarried, she did not know about such an injection. The supervisor even offered to administer the injection herself. The sarpanch decided that the village should henceforth have a married ANM and demanded that the ANM who had refused his request be transferred.

Despite many negative experiences, caused in part by their association with family planning targets, many ANMs were unwilling to denounce the system of targets. One-third of them believed that removing targets would harm other aspects of their work (Table 11.7). An equal proportion, however, favored the removal of targets, and one-fifth thought that the removal of targets would have no effect, either negative or positive, on their work.

Table 11.7: ANMs views on the effect of removing family planning targets: Rural Maharashtra, 1990-91

Effect of target removal	Percentage having specified view
Positive effect	33
Negative effect	33
No effect	20
Positive and negative	7
Cannot say	2
Other response	1
Not applicable (targets not given)	2
No response	3
Total	100
(No. of ANMs)	(181)

Note: Percentages do not add to 100 because of rounding.

ANM = auxiliary nurse-midwife

The reason mentioned by most of those who took a negative view of removing targets was that workers would be tempted to neglect other health-related duties, because many ANMs tend to carry out non-family-planning tasks with the expectation that they will have a positive impact on their family-planning performance (that is, target fulfillment); 44 percent of the ANMs gave this reason (Table 11.8). This argument found ideological resonance among 30 percent who believed that they would lose a sense of purpose and direction. About 18 percent thought that the removal of targets would lead to large increases in the population. One-fifth of the ANMs, on the other hand, felt that the quality of their family planning work would improve. Nearly as many believed that the removal of targets would reduce the harassment aimed at them, alleviate their or lower their expenses. Seventeen percent felt optimistic that their other work

would improve. One in 10 mentioned that their relationship with the community would improve.

Table 11.8: ANM's views on the hypothesized effects on health work of the removal of targets, Rural Maharashtra, 1990-91

Hypothesized effects	Percentage of ANMs having specified view
<i>Negative</i>	44
Other health activities will suffer	30
ANMs will suffer from a lack of direction	18
Family planning work will suffer or population will increase	23
There will be no substantial difference	
<i>Positive</i>	21
Quality of family planning work will improve	20
Harassment, tension, expenses will diminish	17
Other health activities will improve	10
Relationship with community will improve	2
Relationship with colleagues will improve	5
Not applicable or no response	
(No. of ANMs)	(181)

Note: Percentages do not add to 100 because of multiple responses.

ANM = auxiliary nurse-midwife.

Thus, although activities related to family planning were an onerous burden for many ANMs, not all of them were willing to criticize the program. Nor were all of them willing to discard acceptor targets, despite the problems they created in their working lives. Their induction and subsequent socialization into the existing health service program had given them a narrow view of their role and responsibilities in the health of rural communities.

Conclusion

The achievement of a high standard of care presupposes a concern for quality assurance. Integral to quality assurance is the setting of optimal standards for service delivery and outcomes. These concerns have never been adequately emphasized in India's public health system. Instead, the achievement of targets has, until recently, been an obsession at all levels of the health bureaucracy. The removal of targets may be seen as a first step in the establishment of a quality framework. However, this will have to be backed up by uniformly available and accessible health institutions and practitioners. Some of these preconditions have not been achieved in India.

First, the quantitative expansion of the health system has been a bureaucratic exercise; it has been created on paper and only later provided with personnel and infrastructure. By the time the expanded infrastructure attains an optimal level of performance, it is thoroughly discredited among the people whom it is meant to benefit. Health workers then require years to change people's negative opinion about the services provided.

Second, selective health care has been the single most important cause of the low utilization and negative image of the health care services. In rural areas, where people have few alternatives, selective health care has meant ignoring people's basic health needs. The Indian program's overemphasis on family planning, coupled with the neglect of basic curative care, has created the impression among the populace that the government is interested in little more than meeting its family planning targets. Paradoxically, the extremely high priority assigned to those targets has worked to the detriment of the public health system as a whole.

Third, it is difficult, if not impossible, to achieve a high quality of health care without having basic facilities for delivering it. Unfortunately, the government's rural health care system is woefully deficient in basic physical standards of care, even though its own departments and agencies have laid out guidelines for them. This is one of the reasons why the government has no moral authority to enforce minimal standards of care in the unregulated and often irrational private sector. The deplorable conditions that exist in many PHCs and subcenters require tremendous effort on the part of the health workers to provide even minimal care.

A fallout of poor public health services has been the increasing dependence on home-based care. In contrast with the situation in developed countries, home-

based care in India does not complement high quality institutional services that can be relied upon in emergencies. Rather, those who are driven to home-based care have hardly any support systems—such as transport and communication—that they can call upon in emergencies or when they need specialized referral care.

Fourth, ANMs are currently expected to function without close and continuous supervision from medical and nursing professionals. It is ironic that whereas institution-based paramedical workers and auxiliaries in urban areas are precluded from an independent role in health care delivery, rural auxiliaries, with virtually no medical supervision, hospital facilities, or means for transporting patients during emergencies, are expected to perform above their level of training and without the assistance of medical professionals. The role of auxiliary workers in health care and the quality of care expected from them need to be carefully reconsidered and possibly redefined.

Finally, no health worker, let alone an ANM, can meet work expectations in an atmosphere riddled with insecurity and anxiety. The fact that the health care system is insensitive to concerns about their security, and that some superiors contribute immeasurably to such insecurity, undermines their ability to perform at optimal levels. An unsafe and inhospitable workplace does little to promote quality assurance.

The emerging concern among policymakers about the quality of health care at PHCs and subcenters, though welcome, is belated. Health workers have complained in various ways about the problems they face in the workplace. The present concern for quality must now be translated into practical programs to alleviate their problems. Otherwise, the objective of making quality an integral part of the public system is likely to remain a distant goal rather than become a concrete reality.

Acknowledgments

The study on which this chapter is based was conducted at the Foundation for Research in Community Health, Mumbai, with financial assistance from the Danish International Development Agency (DANIDA). We are grateful to Audrey Fernandes, Seema Hirani, and Sandeep Khanvilkar, fellow researchers, not just for participating in the study but for shaping its contours. We are also thankful to our colleague Sunil Nandraj at the Centre for Enquiry into Health and Allied Themes (CEHAT) and to Michael Koenig for their valuable comments on an earlier draft of the chapter.

Note

[1] The CMIE index, which is a rough proxy indicator of the gross national product, is a weighted average of indicators for three sectors of the economy: the agricultural sector (per capita value of output of 26 major crops and per capita bank credit for agriculture); the mining and manufacturing sector (number of mining and factory workers per lakli [100,000] population, number of household manufacturing workers per lakh population, and per capita bank credit for the manufacturing sector); and the service sector (per capita bank deposit, per capita bank credit to services, percentage of the population literate, and percentage of the population urban).

References

1. Centre for Monitoring Indian Economy (CMIE). 1987. District Level Data for Key Economic Indicators with 70 Maps. Bombay (Mumbai): CMIE.
2. Deodhar, S. 1994. "Training of ANMs: An assessment," FRCH [The Foundation for Research in Community Health] Newsletter: 8(5): 1-3.
3. Durgaprasad, P.; S. Srinivasan; N.G. Reddy, and P.K. Bhowmick. 1989. Health Care Delivery System in Rural Areas: A Study of the Multipurpose Health Worker Scheme. Hyderabad: National Institute of Rural Development.
4. Government of India (GOI), Central Bureau of Health Intelligence (CBHI). Various years. Health Information of India. New Delhi: Ministry of Health and Family Welfare.
5. Government of India (GOI), Directorate General of Health Services (DGHS). Various years. Bulletin on Rural Health Statistics in India. New Delhi: Ministry of Health and Family Welfare.
6. Government of India (GOI), Ministry of Health and Family Welfare (MOHFW). 1996. Manual on Target Free Approach in Family Welfare Programme. New Delhi: MOHFW.

7. --- Various years. Family Planning Year Book. New Delhi: MOHFW.
8. Government of India (GOI), Planning Commission. 1956. Second Five Year Plan, 1956-61. New Delhi: Planning Commission.
9. -- 1968. Fourth Five-Year Plan, 1969-74. New Delhi: Planning Commission.
10. --1992. Eighth Five-Year Plan, 1992-97, vol. 2. New Delhi: Planning Commission.
11. Indian Council of Medical Research (ICMR). 1991. Evaluation of Quality of Family Welfare Services at Primary Health Centre Level: An ICMR Task Force Study. New Delhi: ICMR.
12. Indian Institute of Health Management Research (IIHMR). 1991. Training Needs of Health System Functionaries in the State of Maharashtra Jaipur: IIHMR.
13. Indian Nursing Council. 1977. Syllabi and Regulations for the Courses of Studies for Auxiliary Nurse Midwife. New Delhi: Indian Nursing Council.
14. Iyer, A. and A. Jesani. 1995. Women in Health Care: Auxiliary Nurse Midwives. Bombay (Mumbai): Foundation for Research in Community Health.
15. Jesani, Amar. 1990. "Limits of empowerment. Women in rural health care," Economic and Political Weekly 25(20):1098-1103.
16. Kartar Singh Committee. 1973. Report of the Committee on Multipurpose Worker under Health and Family Planning. New Delhi: Government of India.
17. Mukherjee Committee. 1966. Report of the Committee Appointed to Review Staffing Pattern and Financial Provision tinder Family Planning Programme. New Delhi: Government of India.

18. Nichter, M.A. 1986. "The primary health centre as a social system: PHC, social status and the issue of teamwork in South Asia," *Social Science and Medicine* 23(4): 347-355.
19. Paul, D., J.V. Singh, and A.K. Sharma. 1988. "Qualitative and quantitative assessment of medication of sick persons provided by ANMs in a primary health centre," in *National Seminar on Essential Drugs in Primary Health Care in India: A Report*. New Delhi: National Institute of Public Cooperation and Child Development.
20. Phadke, A., A. Fernandes, L. Sharda, and A. Jesani. 1995. *A Study of Supply and Use of Pharmaceuticals in Satara District*. Bombay (Mumbai): Foundation for Research in Community Health.
21. Prakasamma, M. 1989. *Analysis of Factors Influencing Performance of ANMs in Nizamabad District*. Ph.D. thesis, Jawaharlal Nehru University, New Delhi.
22. Srivastava Committee. 1975. *Report of the Group on Medical Education and Support Manpower*. New Delhi: Government of India.
23. World Health Organization (WHO). 1961. *The Use and Training of Auxiliary Personnel in Medicine, Nursing, Midwifery, and Sanitation*. Technical Report Series, No. 212. Geneva: WHO.