Journal of Health & Population in Developing Countries

# Auxiliary Nurse Midwife: What determines her place of residence?

**Pavitra Mohan**
**Sharad D Iyengar**
**Sanjana Brahmawar**
**Kalpana Sen**

## Abstract

Large numbers of health workers in rural areas of developing countries are not available to the communities they are supposed to serve. In India, large numbers of female extension health workers (auxiliary nurse midwives or ANMs) do not reside within their work area, limiting the communities' access to health services. This study was conducted to understand the factors that an ANM considers in deciding where to reside and the interplay of these factors in influencing the decision. The study was conducted in a district of southern Rajasthan, India. Secondary data was reviewed to identify the availability of basic amenities and infrastructure—this was supplemented with self-administered questionnaires; and in-depth interviews on a sub-sample.

Analysis revealed that age of the ANM <30 or more than 45 years, presence of a middle or high school within the sub-center area, and distance of the place of posting being more than 20 kilometers from the city were significantly associated with residing within the sub-center area. Non-availability of education facilities for children and perceptions of insecurity seem to be major factors that deter ANMs from staying in a village. Supervisors or the community neither assist them in facing these difficulties nor enforce accountability for not residing.

Recent devolution of administrative control of ANMs to local self-governments could be helpful in ensuring that they reside within the work area provided these local bodies are also entrusted with responsibility to ensure their safety and comfort. Formation of a committee at the district level, with suitable representation of the civil society, will provide the ANMs a platform to air and redress their problems related to living and working. There is also an urgent need to have an explicit human resource policy for the health sector that addresses issues such as recruitment, posting, career path, supervision, and accountability of health workers.

Key words: Human resource, ANMs, India

Address for correspondence: Dr Pavitra Mohan, Action Research and Training for Health (ARTH)
39, Fatehpura, Udaipur, India-313004E-mail: **arth@datainfosys.net**

The ***Journal of Health and Population in Developing Countries (ISSN 1095-8940)***
is a publication of the Department of Health Policy and Administration, School of Public Health
University of North Carolina at Chapel Hill.

UNC SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF HEALTH POLICY AND ADMINISTRATION

## Introduction

Health workers, different kind of clinical and paraclinical workers have been increasingly recognized as the most important inputs in a health system. The World Health Report (2000) notes "performance (quality and efficiency) of a health system depends ultimately on the knowledge, skills and motivation of the people responsible for delivering services". However, health workers in many developing countries are poorly motivated, inadequately trained and unproductive. Their poor motivation is often ascribed to poor living conditions, low salaries and low social and professional recognition. In face of these factors, health workers adopt coping strategies that further limit their access to communities they are supposed to serve. (Alwan & Hornby, 2002; Lerberghe, Conceicao, & Ferrinho, 2002; Lerberghe et al., 2002).

Despite recognition of centrality of health workers in performance of a health system, the reform agenda often bypasses the difficult issues involved in optimizing the potential of these human resources. While this is partly because of sensitive nature of issues involved, it is often also because of limited understanding of factors that affect the motivation and performance of health workers, and even less of the ways and means to address them (Lerberghe et al., 2002).

In India, performance and quality of health system in rural areas is significantly dependent on Auxiliary Nurse Midwives (ANMs), the multipurpose extension health workers who works at the interface between the community and public health system. While a team of physicians and paramedical workers staff the primary and community health centers, a single ANM manages the sub-center, mandated at a population of 3,000-5,000 for rural areas.[1] She is expected to perform a large number of diverse preventive and curative functions such as motivation for family planning, immunization, conducting deliveries, and treatment for childhood illnesses. She is expected to reside in the subcenter village and remain available round the clock.

Several studies have however shown that they are often not available to the communities they are supposed to serve. The reasons cited for the ANM's non-availability include the large population that she has to cover, her restricted mobility and the fact that she does not stay in the sub-center village or area (Gupta and Walia, 1981; ICMR, 1991; DANIDA, 1996). A study conducted by Indian Council of Medical Research in 1997 in 23 districts of the country showed that only 57% of all ANMs stayed at their place of posting, while the rest commuted to their place of work (ICMR, 1997). Given the centrality of ANMs in performance of public health system in rural India, it is important to identify the reasons for limited availability and the ways and means to address this issue.

In this paper, we examine the reasons for poor availability of ANMs to the rural communities in a district of Rajasthan, where conditions are typical of large parts of northern and central India. In doing so, we focus on identifying the determinants that affect their decision on residing (or not residing) within their work area, a decision that significantly affects their availability and performance. Based on analysis of the study findings we then propose a framework that could be useful in understanding this issue in other settings. We also propose directions for policy and programs in India, so that more ANMs might live within their work areas and thereby enhance access to primary health care at the village level.

## Methods

The study was conducted in Udaipur, a primarily rural district located in southern Rajasthan, India with a population of 2,632,210. For purposes of administration, Udaipur is divided in to eleven blocks with population in each block ranging from 150,000 to 350,000. A network of 538 sub-centers and

[1] Though the staff at the sub-center also includes a Male Multipurpose Worker, in the recent years, they are being phased out. Even where they are currently present, the responsibility of running the sub-center on the day to day basis rests with the ANM

92 Primary Health Care Centers provides primary health care in the district. The district has over 650 auxiliary nurse-midwives.

As in other parts of North India, communities are divided on lines of caste, gender, and socioeconomic status. Income opportunities are few and there is widespread poverty as evidenced by the fact that almost 50% of the district population lives below poverty line.

We hypothesized that the decision of an ANM to reside in her work area is dependent on her interaction with the *environment* and the *system*. "Environment" includes the physical environment (such as terrain, connectivity, availability of amenities, etc.) as well as social environment (such as support by the community) of her work area. "System" refers to the support that the health department provides her and the accountability that it enforces on its workers to reside. Response of an ANM to the environment and the system would be dependent on her personal needs and support systems.

Based on developmental parameters, we categorized all 11 blocks of the district into "more developed" and "less developed". Two blocks were randomly selected from each of these strata. The study was conducted in three distinct phases. In the first phase, we collected secondary information on the physical environment of place of posting of all the ANMs of the sampled blocks, such as availability of electricity, water, and schools. In the second phase, ANMs attending monthly meetings at their block PHCs were requested to fill a written, confidential questionnaire after taking their consent. In this phase, information was collected on individual factors that could affect their place of residence, such as socioeconomic background, availability of family support, needs for healthcare, etc. The third phase consisted of semi-structured interviews with a subset of ANMs. This was aimed to understand how various personal, environmental, and systemic circumstances affect the decision regarding the place of stay. For this "qualitative phase", twenty-five ANMs were randomly selected from among the *resident* (an ANM that resides within her work area was defined as resident) ANMs. For each resident ANM so selected, the nearest *non-resident* ANM was also enrolled: the final sample consisted of 25 resident and 23 non-resident ANMs. Two women investigators trained in social sciences interviewed them at their place of work or at home after seeking appointment.

Quantitative data was entered and analyzed in Epi-info (version-6) software. Bivariate analyses were conducted to identify the factors associated with residential status of ANMs. Responses of ANMs to the in-depth interviews were analyzed manually by collecting all statements on a particular subject, identifying constant themes that emerged in the interviews, noting the range of responses on the themes, and then selecting illustrative comments for inclusion in the report. Information from these interviews was triangulated with findings from the earlier quantitative phase.

*Classifying ANMs on residential status*

Residential status was assigned on the following criteria:

1. When an ANM herself reported that she does not reside in the sub-center area, she was considered as non-resident.
2. If an ANM reported that she did reside in the sub-center area, this was matched with the report of the key informants (Medical officers/clerical staff or LHV posted in the blocks). If there was concurrence between the report of key informants and self -reporting, they were classified as residents.
3. Where there was discordance on the residential status between the key informants and self-reporting by ANMs, research staff made personal visits to the sub-center area to confirm residential status.

## Results

Of the 294 sub-centers in the sampled blocks, there were no ANMs posted in nine of them. While secondary information on the sub-center areas was collected for all of the sub-centers, we could collect complete information from 231 ANMs (81%). Refusal to participate in the study or absence from

consecutive monthly meetings was responsible for non-response of 19% of ANMs. While thirty-eight percent of the ANMs lived in the subcenter area, others commuted to their place of work. They resided either in another village (25%) or in a town (37%).

**Personal profile (table-1)**

Most ANMs in the sample were in their thirties, median age being 35 years. Almost all (94%) of them were married and one- third also had a child younger than 5 years. A large proportion of them (39%) managed at their place of residence without family or other support. Besides being alone, 16% of the ever-married ANMs did not have any economic support from the family: husband either did not work at all; or had died or separated. Many ANMs also did not have adequate support for taking care of their children. : 19%, 6% and 10% Among ANMs with children 19% reported that they leave their young children with neighbors, six percent with elder children and 10% left their children alone, when they went for work

**Table 1: Personal profile of ANMs (%)**

| Characteristic | Frequency |
|---|---|
| **Age-group** | |
| 20-29 | 44 (19%) |
| 30-44 | 157 (68%) |
| 45+ | 30 (13%) |
| | ***Median age: 35 years*** |
| **Caste** | |
| Scheduled caste | 10 (4%) |
| Scheduled tribe | 58 (25%) |
| Others | 163 (71%) |
| **Marital status** | |
| Currently married | 205 (89%) |
| Divorced, widowed, separated | 12 (5%) |
| Never married | 14 (6%) |
| **Educational status** | |
| Upto $10^{th}$ standard | 123 (53%) |
| $10^{th}$-$12^{th}$ | 83 (36%) |
| Graduate or above | 25 (11%) |
| **Background** | |
| Rural | 157 (68%) |
| Urban | 74 (32%) |
| **Origin** | |
| Same district | 135 (58%) |
| Same state, other district | 50 (22%) |
| Other state | 46 (20%) |

**Amenities and Infrastructure (table-2,3)**

At least one village in almost all the sub-center areas was connected with an asphalt road. It was however not easy to commute to the town in times of need. In 33% of the villages, only one or two buses plied to the town daily. The nearest town was often far away (a mean distance of 24 kilometers), which entailed significant investment in terms of time and money.

Though most of the sub-center areas had primary schools, only 24% had a middle or secondary school within the sub-center area. Middle or secondary school was more than 5 kilometers away from

nearly half of the sub-centers. This distance could pose significant stress on children if they were to travel to their schools from the sub-center village everyday

**Table 2: Profile of the sub-center areas**

| Amenities | Proportion of sub-center areas (n=294) |
|---|---|
| **Water (%)** | |
| Piped water | 25 |
| Hand pump | 99 |
| Electricity[2] (%) | 99 |
| Connected by asphalt road (%) | 99 |
| Middle or higher schools (%) | |
| ➢ 0 km. (in the same village) | 24 |
| ➢ 1-5 km. | 31 |
| ➢ 6-10 km. | 35 |
| ➢ >11 km. | 10 |
| Mean distance from district headquarters (km.) | 54.4 |
| Mean distance from nearest town (km.) | 22.7 |
| Post-office (%) | 62.0 |
| Telephone (%) | 64.9 |
| Bus frequency per day to town (%) | |
| 1-2 | 33 |
| 3-5 | 34 |
| >5 | 33 |

**Table 3: Facilities available at sub-centers with accommodation**

| *Amenities* | *Total (n=124)** |
|---|---|
| • No electric connection | 113 (92%) |
| • Electric connection available but supply erratic | 8 (7%) |
| • Electric connection available and supply regular | 2 (2%) |
| Water connection | |
| • No water source | 54 (44%) |
| • Handpump/well | 64 (52%) |
| • Tap water | 5 (4%) |
| Location | |
| • Middle of the village | 53 (49%) |
| • Far from the village | 56 (51%) |
| Safety | |
| • Safe | 41 (33%) |
| • Unsafe | 82 (67%) |

* Total equals to sub-centers with accommodation. The above data excludes 3 sub-centers that were operating out of rented buildings and did not have any accommodation.

[2] This refers to electrification of the main village. Peripheral hamlets of these villages often lack electricity

Eighty-one percent of sub-centers had their own buildings and 46% of sub-centers lacked accommodation for ANMs. Even those having accommodation lacked basic amenities: 92% and 96% of them did not have electrical connection and piped water, respectively. This was despite the fact that 99% of the subcenter villages were electrified and 25% had piped water: it should not require much investment to extend the facilities available in the village to the subcenter building. Half of all sub-centers were located away from habitation, and most were perceived by the ANMs to be unsafe for living.

**Factors that affect ANMs' place of residence**

ANMs who did not reside within the sub-center village lived either in another village or in a town. Since the factors that affect living in any village (as opposed to living in a town) were likely to be different from living in the sub-center village, we analyzed the quantitative data separately to identify both these set of factors (table-4a, 4b)

***Physical environment***

Amenities: availability and quality

Presence of amenities within the sub-center area such as electrification, presence of tap water or asphalt road were not significantly associated with residential status of the ANMs. Whether or not the sub-center had living quarters also did not make a difference to their place of stay. Larger proportion of ANMs however stayed in sub-center areas where living quarters were located in the center of the village, than in those where they were remote. Poor quality of accommodation possibly does not make living any easier than not having any living quarters (tables 4a, 4b). During in-depth interviews most ANMs, irrespective of residential status, referred to poor quality of sub-center accommodation and lack of amenities. Many non-resident ANMs cited these difficulties as reasons for not staying in the sub-center village. In face of the difficulties posed by lack of amenities and infrastructure, husband's place of residence and relationship with the community became an important consideration in deciding where to stay:

> "There is no electricity in the sub-center, and water is also a problem -- water stops flowing after filling a few buckets. Milk and vegetables are not available in the village. My husband works in another district, and it is difficult to reside here alone" *31 year, non-resident.*
>
> "There is no building in the name of this sub-center. Rents are high -- people ask for Rs 500-600 for a house, which I cannot afford. But this is a nice village -- my *sasural* (parents-in-law's home) is located here and I live there. It helps to stay in the sub-center village, because it makes my work easier" *33 year, resident.*

Education facilities for children

ANMs posted in the sub-center where a middle or secondary school is located, were also significantly more likely to reside in the sub-center village, suggesting that children's education plays a significant role in influencing the decision of place of stay of an ANM (Table-4a, 4b). This inference was supported by the ANMs responses from in-depth interviews. Most ANMs reported being concerned about their children's education: many who had earlier lived in the sub-center village said that they had shifted to a bigger village or town because local facilities for education of grown-up children were either remote, or of poor quality. In such instances, they traded their children's inconvenience of commuting to school with their own time and effort in commuting to the sub-center from a town. By contrast, ANMs whose children were very young and either did not go to school or went to primary school found it convenient to live in the sub-center area.

"I stayed in the sub-center village for 4-5 years. Because of my children's schooling I have recently shifted to the town. A lot of children's time was wasted in commuting from the (sub-center) village" *38 year old ANM, non-resident.*

"If one stays at the sub-center, only then could one give some time to the children. Even otherwise, my children are small and do not go to school. Therefore, I stay in the sub-center area " *28 year old ANM, resident*

**Table 4a. Association of various factors on residential status: "resident" or "non-resident"**

| Variable | Residential status | | OR (with CI) | p-value |
|---|---|---|---|---|
| | Resident | Non-resident | | |
| **Caste** | | | | |
| • SC/ST | 33 (47%) | 35 | 1.67 (0.90-3.09) | 0.0794 |
| • Others | 55 (35%) | 108 | | |
| **Presence of school** | | | | |
| • Yes | 27 (50%) | 27 (50%) | 1.90 (0.98-3.69) | 0.0395 |
| • No | 61 (34.5%) | 116 (65.5%) | | |
| **Presence of accommodation** | | | | |
| • Yes | 48 (38.7%) | 92 (61.3%) | 1.06 (0.67-1.87) | 0.84 |
| • No | 40 (37.4%) | 51 (62.6%) | | |
| **Location of the subcenter**** | | | | |
| • Center of the village | 27 (51%) | 26 (49%) | 2.66 (1.13-6.35) | 0.0140 |
| • Distant from the main village | 16 (28%) | 41 (72%) | | |
| **Age-group (in years)** | | | | |
| <30 | 18 (41%) | 26 (59%) | ---------- | 0.0192 |
| 30-44 | 52 (33%) | 105 (67%) | | |
| 45+ | 18 (60%) | 12 (40%) | | |
| **Distance from city** | | | | |
| 1-30 km | 22 (26.1%) | 62 (73.9%) | ---------- | 0.0005 |
| 31-50 | 24 (33.8%) | 47 (66.2%) | | |
| 50+ | 42 (55.2%) | 34 (54.8%) | | |
| **Origin** | | | | |
| • Rural | 65 (41.4%) | 92 (58.6%) | 1.57 (0. 84-2.94) | 0.131 |
| • Urban | 23 (31.1%) | 51 (68.9%) | | |

**110 responses out of 124 with accommodation*

Distance from district headquarters

Analysis revealed that distance from the district headquarters significantly influenced the decision to reside in the sub-center area: the nearer an ANM is posted to the district headquarters, more likely she is to reside in the town (Table-4a, 4b). In-depth interviews helped explain these findings: proximity to the town made it easier for them to commute to their place of work—commuting from a shorter distance entails less cost in terms of time, money, and energy.

"During my earlier posting, I used to reside at the sub-center because it was not possible to *up-down* from there. But now, my sub-center is close to Udaipur, and also because of my children's studies, I do not reside in the sub-center. Wherever one may stay, the work should be completed on time…" *46 year old ANM, non-resident.*

"Before this, my posting was in ## sub-center and I used to stay there. Then I was transferred to this place - there is no water or electricity, but it is closer to the town (and hence easy to commute). I have therefore stopped residing in the sub-center" *33 year old ANM, non-resident.*

**Table 4b. Association of various factors on place of residence of ANMs: "village" or "town"**

| Variable | Place of residence | | OR (with CI) | p-value (chi-sqr) |
|---|---|---|---|---|
| | Village | Town | | |
| **Caste** | | | | |
| • SC/ST | 53 (88%) | 15 (22%) | 2.57 (1.28-5.20) | 0.00390 |
| • Others | 93 (58%) | 70 (42%) | | |
| **Presence of school** | | | | |
| • Yes | 34 (63%) | 20 (37%) | 0.99 (0.5-1.95) | 0.96600 |
| • No | 112 (63.3%) | 65 (36.7%) | | |
| **Presence of accommodation** | | | | |
| • Yes | 77 (62.1%) | 47 (37.9%) | 0.67 (0.49-1.54) | 0.60000 |
| • No | 69 (64.5%) | 38 (35.5%) | | |
| **Distance from city** | | | | |
| • 1-30 km | 35 (46.7%) | 49 (53.3%) | --------- | 0.00001 |
| • 31-50 km | 51 (71.8%) | 20 (28.2%) | | |
| • 50+ km | 60 (78.9%) | 16 (21.1%) | | |
| **Origin** | | | | |
| • Rural | 114 (72.7%) | 43 (27.3%) | 3.48 (1.88-6.48) | 0.00001 |
| • Urban | 32 (43.2%) | 42 (56.8%) | | |

***Social environment***

As described above, secure relationships with the community could help the ANMs to cope with lack of amenities and infrastructure. However, in most cases ANMs reported feeling insecure in living in the sub-center area. Communities in the sub-center areas are extremely heterogeneous, and this reflected on ANMs perceptions of the community, which were often seemingly contradictory. In general, resident ANMs were appreciative of the friendliness and helping nature of some families in the village. They were however critical of most others "illiterate villagers" for not accepting the family planning methods (and hence affecting their performance).

They often lived in fear of several men who threaten, abuse or intimidate them. In-depth interviews brought out in detail the circumstances and situations of sexual harassment and intimidation ANMs face in their work place. While several ANMs (both resident and non-residents) reported that they themselves had been harassed or intimidated at least once during their professional life, majority reported instances in which another ANM had suffered harassment. The reported instances of sexual harassment could be broadly categorized as follows:

Opportunistic sexual harassment

The profession of an ANM demands her accessibility to the men and women of the village at all hours: some men exploited this accessibility, more so in event of her being alone and vulnerable. Few ANMs reported instances of sexual harassment (physical molestation and rape) at pretences of calling to attend a delivery, offering a lift for a field trip, or seeking treatment by a male, evidently feigning an illness.

Six years back, an unmarried ANM residing in a sub-center rejected the marriage offer of a boy living in the vicinity. Some days later a group of persons came to call the ANM to attend a delivery, but took her to a secluded spot where she was gang-raped and then murdered. A police complaint was filed after some difficulty. As a group, ANMs of the district publicly applied pressure for bringing the culprits to book, but instead had to face intimidation from persons close to the accused. The case ultimately fell through for want of evidence and no one was convicted. S*everal ANMs, resident and non-resident.*

Intimidation

Few (3) ANMs reported instances of men under the influence of alcohol, threatening, abusing or hitting them. In one instance the ANM had refused to accompany a man for a home visit, while in another, she had returned after being on leave for several days at a stretch. In some other instances, community members confronted the ANM apparently because she refused to accompany some persons to attend to home-deliveries -- one of the women had subsequently died during labor. We were unable to assess the community perspective on these confrontational situations. These instances, experienced by self or others inhibit several ANMs and they refuse visiting homes for conducting deliveries. Refusal to visit a family for conducting deliveries could become a further excuse to inflict physical or mental violence on the ANMs.

Most of the reported incidents involved ANMs who had lived alone in the sub-center area. Acts of harassment experienced by themselves or by other colleagues had left a sharp imprint on ANMs' minds, and had affected their decision on where to reside in several cases.

Many ANMs reported that after hearing of the incident of rape quoted above, they stopped residing within the sub-center area. Response to such a situation often depended on the family and social support of the ANM; in absence of such a support, most ANMs shifted the residence, or managed a transfer out of the place of posting.

"Earlier when I was posted here, villagers (men) used to harass me. Sometimes after drinking they would come to the sub-center and throw stones… At that time my husband was staying with me. At times we got into physical fights with them. Now my husband is posted in Udaipur (district HQ town) and I do not stay here alone. Even if I were to lose my job, I would not reside here" *28 year, non-resident.*

While perceptions of security seemed to have influenced their decision to reside within the work area, prevalent caste or socioeconomic group of the sub-center village was not associated with their place of residence. Nor did it make any difference whether they belonged to the predominant caste of villagers of the sub-center area (tables 4a, 4b).

On the one hand communities do not appear to provide security or support to the ANMs, on the other it does not appear to exercise its authority to ensure that they reside within the work area. This is especially true if ANMs otherwise enjoy good relationship with some of its influential member families, as suggested by the following responses:

"I use a vehicle for commuting. I live nearby and therefore can commute easily. Villagers are completely satisfied with my work - I complete my work on time. They therefore do not object to my not staying here" *35 year old ANM, non-resident.*

"For the last 14 years, I stayed at the sub-center. Then because of certain problems, I stopped staying here. The villagers say that I may stay in the town nearby, but wish that I do not leave the village (get a transfer)" *40 year old ANM, non-resident.*

In at least one case, villagers had complained to health department officials regarding non-residence stay of the ANM at the sub-center headquarters. The ANM however continued to live away.

***Interaction with the system***

In view of difficult living and working conditions, support by supervisors for coping becomes critical. Most of the ANMs reported that supervisors did not attempt to solve problems related to their working conditions or place of stay. ANMs perceived supervisors as being insensitive, and the relationship was evidently hierarchical. None of the ANMs interviewed reported any significant support of supervisors or officers for dealing even with grave problems such as sexual harassment incidents described above.

For fear of rebuke, many ANMs do not even raise their problems with supervisors but instead try to develop their own mechanisms for coping.

"My sub-center does not have a building and I am still living in rented accommodation. But the landlord is asking me to vacate the house, and often harasses me. I have reported this many times to the supervisors and to *panchayat* people, but no one listens. This is my biggest problem" *33 year old ANM, resident.*

"I do not tell any of my problems to anyone—because no body listens. On telling our supervisors, they say, do not talk of your problems" 33 *year, non- resident.*

"On telling our problems to the supervisors, they say you will have to work despite all your problems. Sometimes on not meeting our targets, they ridicule us—sometimes other ANMs are in tears because of this……." 32 *year old resident.*

While the supervisors do not support the ANMs in coping with work or living, they also do not seem to be unduly concerned whether they reside within their work area or not, so long as they complete their work. In most cases, achieving sterilization targets constituted priority work, and this did not require the ANM to reside locally.

On occasion, written notices have been served to ANMs for not staying at their place of posting, but no follow-up action has been taken. Administrators claim that the ANMs' political connections restrain them from taking action against those who do not reside within the sub-center area.

"No, they take action only if sterilization targets are not met, otherwise they just advise them (ANMs) to stay (in the sub-center area)" *30 year old ANM, resident.*

"They take action on a case-to-case basis. Only if the ANM does not complete her work do they serve written notice" *28 year old ANM, resident.*

"Wherever you might stay, the work should be completed on time" *46 year old, non-resident.*

***Personal circumstances: background and stage in life***

As described above, family support allowed some of the ANMs to continue to reside within the work area in face of a hostile community and insensitive system. Analysis further suggested that ANMs having rural origin were significantly more likely to reside in villages, as compared to their urban-bred counterparts, who continued to stay in towns. Similarly, those belonging to backward castes were more likely to reside in villages as compared to those of other castes (Table 4b)

Besides being better adjusted to a rural set-up, ANMs having rural background and belonging to backward castes were likely to be poorer, and would prefer staying in the villages to augment their incomes by collecting fee for services. They were also likely to be posted in distant and remote areas, where commuting everyday would be expensive and may not be feasible. Analysis further revealed that ANMs belonging to higher castes were six times more likely to be posted in blocks closer to the town — this could reflect discrimination in postings (data not shown)

Women aged below 30 or above 44 years were significantly more likely to reside within the work area as compared to those aged 30 to 44 years (table 4a). This is possibly because of greater needs in this period of their lives that could not be met by residing in villages, a hypothesis supported by the fact that education of children was perceived as one of the most important needs by ANMs with grown up children, and that presence of a middle school within the work area was significantly associated with residing.

***Perceived advantages of residing: work, money and time***

Despite these evident difficulties in residing, staying within the sub-center area also offers some advantages. Most ANMs were appreciative of these advantages - they mentioned the time and money saved on travel, lower living costs in the village and better rapport with the community. Several residents reported that they were able to spend the time saved in commuting with their children. They also acknowledged that residing in the village provides them with an opportunity to earn money by conducting deliveries and giving injections. Non-residents acknowledged that by not staying in the village they forego these advantages:

"Expenses are higher in towns -- expenses on travel, stay and other expenses. By staying in the sub-center, one can work more easily, and one does not have to run around" *36 year old, resident.*

"Only by staying in the village, can one develop a congenial relationship with the community. There is good communication with the people and one can provide services 24 hours a day. Targets can also be achieved by staying at the sub-center" *38 year old ANM, resident.*

"I do not keep good health, and if I were to *up-down* everyday, I would have to walk 5-6 kms. I therefore prefer to stay in the sub-center" *33 year old ANM, resident.*

A factor that affected whether these advantages are significant was proximity to the town, which determined whether significant costs would be involved in traveling to the place of work.

## Discussion

Earlier studies and program evaluations suggest that poor residential facilities and inability to meet basic family needs are prime reasons why ANMs do not reside in their work areas (Bhatia, 1999; Iyer and Jesani, 1999). On the other hand, based on an analysis of human resource management in the health sector of the country, some authors (1999) have suggested that non-availability of staff reflects the larger problems of lack of accountability within the public system, lack of awareness among clients, and political protection to poor performers (Mavlankar, 1999). This view is echoed in private by a large number of public health managers in the government sector.

Based on results of our study, we propose the following framework that reconciles these two seemingly divergent views. This framework describes not only the individual factors, but also how ANMs might consider one or more of these factors in arriving at this critical decision.

According to this framework, an ANM's decision to reside or not could be considered an "economic" decision that she takes after having weighed the "ease of staying" and "inconvenience of not staying" in the work area (figure-1). Ease of staying is often not significant because of uniformly poor living conditions and deters them from residing in the work area. Occasionally however, job of spouse, family support, and large village increases the ease. In absence of significant pressure from the community or system to reside, inconvenience of not staying depends only on factors such as cost of commuting and travel time. Where this inconvenience is large, decision shifts in favor of residing.

**Figure 1: Framework for decision-making by ANM**

| ***Ease of staying*** | ***Inconvenience of not staying*** |
|---|---|
| Good living quarters | Cost of transport |
| Community support | Cost of rent in the town |
| Good schools for children | Travel time |
| Other amenities | Accountability to the system |
| Job of the husband | Pressure from the community |
| Security | |

Government agencies have sometimes recognized the poor living conditions of the ANMs and inadequate support they receive. An action plan of Ministry of Health & Family Welfare (MOHFW) for revamping the family welfare program in India identified improving the quality and outreach of services was outlined as a major thrust area While emphasizing client orientation, it affirmed that state governments should look into the practical problems of the workers like ANMs, such as their place of stay, mobility, travel expenses, etc because "inadequate attention to these problems seriously hampers the working of service providers at the grass root level" (MOHFW, 1992) National Population Policy (2000) and National health policy (2001) have however largely ignored the need to support the frontline workers in improving program performance (Dept. of family Welfare, 2000; MOHFW, 2002).

Besides the government, donor communities that support health and population programs in India have also realized the critical need to support these frontline workers for improving the program performance. A World Bank report recognized the critical role of ANMs in improving access and quality of primary health care services and noted the critical role of support from the system on their performance. It also observed that currently these workers receive little support in terms of mobility, security and logistics; and in a hierarchy dominated by doctors and administrators, are often sexually and socially vulnerable themselves. The report recommended strengthening performance measurement, training, supervision, and logistics systems, to give workers the incentives, skills, support and supplies they needed. Further, recognizing that poor location of the sub-center increases the security threat to the

ANMs, it recommended that sub-centers that are built outside the village centers should be converted into clinics without residential accommodation (World Bank, 1997)

Subsequent to these concerns, some actions have been initiated at the ground level. Within the Reproductive and Child Health (RCH) program, several schemes related to improve the working conditions of the ANMs, primarily aimed at improving mobility and reducing workload have been included -- these include posting of an additional ANM in the remote sub-centers, and the provision of loans to purchase mopeds for improving mobility. In Rajasthan, instead of additional ANMs, ANM helpers (*sahayikas*) have been appointed to assist and support the ANM (MOHFW, 1997)

In Rajasthan, Women Resource Center (WRC) has also been carrying out gender sensitive training of all cadre of government health personnel in a few districts. It is hoped that gender sensitive training would not only make them more sensitive to the needs of women clients, but would also help the male providers and officials to become more empathetic t the ANMs and responsive to their needs (Mathur, undated).

Another move relates to the judgment of Supreme Court of India in the case of Vishakha and others versus the state government of Rajasthan and others--- the judgment explicitly placed the state responsible for preventing sexual harassment of female employees at the work place (Women's Commission, 2002). In pursuance of this order, a complaint committee has been constituted in MOHFW to look into the complaints of sexual harassment of women employees in the department. As per directions, the committee is also working in matters relating to appropriate working conditions of women employees at the place of work. Formation of such committees at the district level would not only provide the ANMs a platform to voice their needs and grievances, they would also be well placed to take locally relevant actions for improving their living conditions.

On the one hand, health administration does not support these frontline workers, on the other they do not hold them accountable for residing in the work area. Excessive emphasis of the program mangers on monitoring achievement of sterilization targets has been well documented in India. Achieving targets could be taken as a valid excuse for not attracting any action for other duties such as residing in the area. While recommendations have been made to initiate disciplinary actions against those who refuse to live within their work area, it does not seem to have much effect in practice.

It has also been suggested that in future community and local self -governments might be well placed to ensure that workers lived within the local community (World Bank, 1997). The community however does not appear to put any significant demand on them for residing in the work area. This could be either because the community and its representatives are not empowered to assert their rights or they simply do not view ANMs as being responsible for providing services requiring round-the clock availability. A recent order passed by the government of Rajasthan could however empower the local self-governments to ensure ANMs availability. The order directs Panchayati Raj Institutions (PRIs – local self-government in rural areas) to assume responsibility for effective implementation of public health and family welfare projects in the state, and hands over the administrative control of primary health centers and sub-centers to these PRIs (Order number Pan.6(58) Medical and Health/2/99, Department of Medical and Health (group-2), dated 1 May 2000 ). It provides the *panchayats* with authority to recommend transfers of the ANMs who do not perform well or remain absent from duties. The move while aiming to make frontline workers accountable to the community does not make the community responsible for ensuring support or security to them.

## Conclusions and Recommendations

The framework presented above suggests the need to have a comprehensive strategy to ensure that ANMs reside in the work area: any such strategy should act both on increasing the ease (making living more comfortable) and in enforcing accountability (increasing the inconvenience). There is an urgent need to have a comprehensive human resource policy for the health sector that explicitly lays down

directions for supporting as well as enforcing accountability to the front line workers. Some of the issues that such a policy could address are as follows:

1. *Recruitment and posting*: Women with rural background may be preferred in recruitment given the fact that they are more likely to reside in the villages.
2. *Transfers, career path*: It also emerged from the study that ANMs have varying needs at different periods of time during their career. Absence of a well defined transfer policy means that while some of them continue to be posted in remote and difficult areas for long durations, others manage to remain at comfortable postings closer to town from where it is easier to commute daily. A transfer policy that takes into consideration increasing personal responsibilities and needs of ANMs over time by posting them into progressively bigger villages or towns after defined periods of time will be helpful in this regard
3. *Meeting their needs:* While fulfilling some of the needs such as schooling of the children requires larger inputs, responsive supervisors who are provided with requisite means can meet others. For the latter, policy should emphasize making supervision more responsive and humane and provide mechanisms for ensuring the same.

Taking advantage of the Supreme Court directive on formation of complaint committees, we recommend formation of such committees at district level for women employees of the health department, including ANMs. Such a committee should have representatives from the health department, district administration and civil society, and should be mandated to redress the cases pertaining to sexual and physical harassment and to take actions to improve living and working conditions.

Finally, we recommend that administrative control of the ANMs to *panchayats* should be matched with entrusting them to ensure safety and appropriate living conditions for the ANMs; an investment they must make to receive accessible and quality services. In several instances, where an intermediary agency provided the required support and community was responsive, this arrangement has been found to be useful in meeting the needs of the ANMs and enforcing accountability. The following example illustrates the case in point. An ANM posted in a sub-center in Jhadol block of Udaipur district did not reside in the sub-center area. A non-governmental organization working in the area motivated the villagers to raise the issue in the *gram sabha* (general body meeting of all the residents of the village comprising the *gram panchayat*). On being asked at the *gramsabha*[3] why she did not reside in the work area, the ANM referred to the poor state of her living quarters. Villagers resolved to repair the accommodation and subsequently when the sub-center was repaired, she started residing there

***Acknowledgements***

This study was funded by a grant from Indian Institute of Management (IIM), Ahmedabad as part of the Health Policy Network of India (HELPONET), supported by International Health Policy Program. We acknowledge the contributions made at the design, analysis and documentation stage by Professor Dileep Mavlankar and Professor Ramesh Bhat of Public Systems group, IIM, Ahmedabad. We also thank Dr Amar Jesani (CEHAT), Dr K Anand (AIIMS) and Dr Dinesh Agarwal (UNFPA) for reviewing the draft and providing useful suggestions. We also wish to thank the district health officials of Udaipur who provided official support for conducting the fieldwork. Most importantly, we would like to thank the ANMs, who patiently interacted with us, taking away time from their work and family.

[3] *Gramsabha* is the constitutional democratic structure at the village level that is constituted of all adult villagers. It meets 2-3 times in a year.

## References

Alwan, A. and P. Hornby. 2002. The Implications of health sector reform for human resources development. *Bulletin of the World Health Organization.* 80: 56-60

Bhatia, J.C. 1999. Constraints to Improving Quality of Primary Health Care Services in Rural Karnataka. *In* Michael A. Koenig and M.E. Khan (ed.). Improving Quality of Care in India's Family Welfare Programme: The Challenge Ahead.. The Population Council, pp. 183-208

DANIDA. 1996. Evaluation Report: Health Care Project, Madhya Pradesh, India. Main Report, Vol. 1. Ministry of Foreign Affairs, DANIDA.

Gupta, K. B. and B.N.S. Walia. 1981. Utilization of Health Facilities by Rural Children. Indian Pediatrics. 18:217-221.

Indian Council of Medical Research (ICMR). 1991. Evaluation of Quality of Health Services at Primary health Center Level. An ICMR Task Force Study. Summary Report. New Delhi, India: Indian Council of Medical Research.

Indian Council of Medical Research (ICMR). 1997. A baseline survey of Reproductive Health Care Services in 23 districts of India. New Delhi, India: Indian Council of Medical Research.

Iyer and Jesani. 1999. *In* Michael A. Koenig and M.E. Khan (ed.). Improving Quality of Care in India's Family Welfare Programme: The Challenge Ahead. The Population Council, pp. 183-208

Lerberghe, W, V., O. Adams, P. Ferrinho. 2002. Human resources impact assessment. *Bulletin of the World Health Organization*. 80 (7): 525-526.

Lerberghe, W. V, C. Conceicao, W.V. Damme, P. Ferrinho. 2002. When staff is underpaid: Dealing with the individual coping strategies of health. *Bulletin of the World Health Organization*. 80 (7): 581-586

Mathur, K. (undated). Women Resource Center. Personal communication.

Mavlankar, D.V. 1999. Human Resource Management: Issues and Challenges. *In* Saroj Pachouri (ed.). Implementing a Reproductive Health Agenda in India: The Beginning. The Population Council.

Ministry of Health and Family Welfare (MOHFW). 1992. Action Plan for Revamping the Family Welfare Program in India. New Delhi, India: MOHFW, Government of India.

Ministry of Health and Family Welfare (MOHFW). 1997. Reproductive and Child Health Program: Schemes for Implementation. New Delhi, India: MOHFW, Government of India.

Ministry of Health and Family Welfare (MOHFW). 2002. National Population Policy. New Delhi, India: Department of Family Welfare / MOHFW, Government of India.

Ministry of Health and Family Welfare (MOHFW). 2002. National Health Policy. MOHFW, Government of India. http: \\ mohfw.nic.in\np2002.htm, accessed on 12 June, 2002

Women's Commission web-site accessed on 22 June, 2002.

World Bank. 1997. Project Appraisal Document India. Reproductive and Child Health Project. World Bank.

World Health Organization. 2000. World Health Report. Geneva: World Health Organization.