

Sub Centre Support, Need of the Hour: A Comparative Study from Lucknow

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ABSTRACT:

Rural health in India depends a lot on the functioning of Sub-Centers. The conditions of the Sub-Centers in the country are far below than the expected performance. The present study aimed to find out the infrastructure and functioning of Sub-Centers, after introduction of National Rural Health Mission. Study design was cross-sectional. It followed multistage random sampling for selecting 16 Sub-Centers in Lucknow district, Uttar Pradesh. A score card was developed to evaluate different parameters in structure and functioning of Sub-Centers. Although labor room was present in half of the Sub-Centers, the deliveries were found to be conducted in none of those. Electricity and water supply were present only in 18.8% and 56.2% of the Sub-Centers respectively. Ante-natal registration and immunization were found to be good in 75% of the Sub-Centers. Post-natal care was virtually non-existing and referral of high risk pregnancies was very poor in most of the Sub-Centers. The focus of improvement should be centered on the betterment of structure and services provided at the Sub-Center level.

KEY WORDS: ANM (Auxiliary Nurse Midwife), evaluation, India, IPHS (Indian Public Health Standards), National Rural Health Mission (NRHM), physical facilities, Sub-Center (SC).

INTRODUCTION:

In India, a Sub-Centre (SC) is the most peripheral and first contact point between the primary health care system and the rural community. As per the present population norms, one SC is meant to serve every 5000 population in plain areas and every 3000 population in hilly, tribal and backward areas. It is the lowest rung of a three-tier health care delivery system in the country. Keeping Auxiliary Nurse Midwife (ANM) as the instrument, a SC provides interface with the community at the grass-root level, delivering all the primary health care services from maternal and child health care to treatment of minor ailments in outdoor set-up. But it seems that inspite of having adequate efforts, there still remain many loopholes in some parts of the delivery system, which has an impact on the overall performance and quality of health services, particularly in the rural area.

Available literatures suggest a gloomy picture of SCs across the country. At many a places, SCs don't have their own buildings for providing services to the beneficiaries.^[1,2] Even when a rented building is available, getting a separate clinic or labor room is not always possible.^[3] Basic amenities like water and electricity was also found deficient at SCs, as suggested by previous studies.^[1,4] A study^[4] conducted in Mandla District of Madhya Pradesh depicted a poor picture of ante and intra-natal care. They found post-natal care in a comparatively better position than former two. But a recent study^[5] by Government of Uttar Pradesh did not find any clue about the existence of post-natal services. Immunization services ranked as the best amongst all the services in most of the studies.^[6,7]

The Government of India launched the National Rural Health Mission (NRHM) in 2005 with aim to bring about improvement in the rural health system and the health status of the rural people. Under this mission, Indian Public Health Standards (IPHS) are being prescribed to achieve an acceptable standard of quality of care in the SCs.^[8] These standards would

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help monitor and improve functioning of SCs. While delivering health care services to the rural community, problems may appear due to failure in maintaining quality but they may also result from a range of structural problems. Hence, this study is aimed to find out the infrastructure and functioning of SCs of Lucknow district, after implementation of NRHM.

MATERIAL & METHODS:

The present cross sectional study was conducted among Sub Centres in Lucknow district, the capital of Uttar Pradesh (UP), India. The period of study was from August 2009 to July 2010.

After obtaining clearance from the Institutional Ethical Committee at the university, permission to conduct the study was taken from the superintendents of the concerned CHCs. Verbal consent was obtained from ANMs before interviewing. A pretested structured interview schedule, after necessary modification, was used to collect required information.

Multistage random sampling was used for selecting SCs. In the first stage, out of 9 Community Health Centers (CHC) in Lucknow, two were chosen randomly. In the second stage, 2 Primary Health Centers (PHC) were selected randomly from each CHC, thus four PHCs were included in the study. A list of all SCs was obtained from each of the PHCs and those were divided into two groups, depending on the distance of the SCs from the respective PHCs. Five km distance was taken as the cut-off limit. Under each PHC, two SCs were taken within 5 km and two SCs were taken more than 5 km away from the respective PHC, thus a total of 16 SCs were studied to include 5% of such centers of the district.

Different variables of infrastructure [Table 1] and facilities [Table 2] were checked by inspection. Registers were also checked thoroughly for recording the performance of SCs over past one year. Performances were assessed based on their coverage in different aspects compared to target norm for those indicators [Table 3]. Frequency and percentage for categorical variables were calculated. The performance of the SCs was decided based on their coverage of different services. A coverage of >80% was considered as very good, while very poor stood for a coverage <20%.

RESULTS:

Although SC building was present in 87.5% cases, it was operational only in 56.2% cases. The

SCs in most of the places (68.8%) were in their own building. Construction was complete in only 37.5% of the SCs. Compound wall all around was present in 62.5% of the SCs. Examination room was present in 81.2% of the SCs, but clinic room and labor room were present in 62.5% and 50% of the SCs, respectively. In none of the SCs where labor room was present, the deliveries were conducted. The most common reason for not conducting deliveries was absence of electricity (100%) followed by absence of resident staff (87.5%). The data were comparable for proximal and distal SCs [Table 1].

Electricity was present only in 18.8% of the SCs. Water supply was found in 56.2% SCs but nowhere piped water supply was available. Although boundary wall with gate was seen in 68.8% of cases, but prominent display board in local language was seen in mere 18.8% of the centers. Female utilities were seen in two-third cases, but separate male utilities only in 31.2% of the SCs. Not even a single SC was found to be equipped with suggestion/ complain box, telephone or transport facility for staffs. Arrangement for waste disposal was seen in only one centre. Residence for ANM was available in 37.5% of the SCs, but nowhere ANM was residing at that building. Again, the proximal and distal SCs seemed to be comparable on these variables [Table 2].

In ANC registration and immunization of the children, 75% of the SCs performed very well. Overall, 50% of the SCs lacked data about early registration. Among the SCs in which data on early registration were available, 87.5% were graded as average. Regarding IFA tablets distribution and TT immunization, 62.5% of the SCs were graded as very good in each of these services. But in referral of high risk cases of pregnancy, 87.5% of the SCs performed in the category of very poor. About 25% and 12.5% of SCs were rated as 'good' or 'very good', respectively in performing institutional deliveries, while 37.5% of the SCs in the 'poor' category. Half of the SCs were graded as average with respect to recording birth weight of newborns. Proper record on various important aspects of post natal care was not available in any of the SCs studied [Table 4]). When comparing the performance of proximal and distal SCs, most of the data seemed comparable (data not shown) except immunization of the children, where 87.5% proximal SCs did very well in contrast to 62.5% of the distal SCs.

Table 1: Distribution of infrastructure of SC building.

| SC building | Proximal SC (N=8) | Distal SC (N=8) | All SC (N=16) |
|---------------------------------------|-------------------|-----------------|---------------|
| | Number (%) | Number (%) | Number (%) |
| Availability of SC building | 7 (87.5) | 7 (87.5) | 14 (87.5) |
| Whether operational | 5 (62.5) | 4 (50) | 9 (56.2) |
| Type | | | |
| Own | 5 (62.5) | 6 (75) | 11 (68.8) |
| Rented | 2 (25) | 1 (12.5) | 3 (18.8) |
| Construction completed | 3 (37.5) | 3 (37.5) | 6 (37.5) |
| Compound wall- all around | 4 (50) | 6 (75) | 10 (62.5) |
| Examination room present | 7 (87.5) | 6 (75) | 13 (81.2) |
| Clinic room present | 4 (50) | 6 (75) | 10 (62.5) |
| Labor room present | 3 (37.5) | 5 (62.5) | 8 (50) |
| Deliveries conducted | 0 (0) | 0 (0) | 0 (0) |
| Reasons for not conducting deliveries | | | |
| Staff not staying | 3 (37.5) | 4 (50) | 7 (43.75) |
| Poor condition of labor room | 0 (0) | 3 (37.5) | 3 (18.75) |
| No power supply | 3 (37.5) | 5 (62.5) | 8 (100) |

Table 2: Distribution of availability of physical facilities at SCs (N = 16).

| Physical facility available at SCs | Proximal SC (N=8) | Distal SC (N=8) | All SC (N=16) |
|------------------------------------|-------------------|-----------------|---------------|
| | Number (%) | Number (%) | Number (%) |
| Electricity | 2 (25) | 1 (12.5) | 3 (18.8) |
| Water supply | 4 (50) | 5 (62.5) | 9 (56.2) |
| Source of water | | | |
| Bore well/ hand pump/ tube well | 4 (50) | 5 (62.5) | 9 (56.2) |
| Boundary wall with gate | 5 (62.5) | 6 (75) | 11 (68.8) |
| Display board in local language | 2 (25) | 1 (12.5) | 3 (18.8) |
| Public utilities | | | |
| Male | 3 (37.5) | 2 (25) | 5 (31.2) |
| Female | 5 (62.5) | 6 (75) | 11 (68.8) |
| Bio medical waste disposal | 1 (12.5) | 0 (0) | 1 (6.2) |
| ANM Residence available | 3 (37.5) | 3 (37.5) | 6 (37.5) |

DISCUSSION:

In the present study, three-fourth of the SCs performed very well (coverage 75%) in ANC registration and immunization. The overall performance is not consistent with a previous study^[4], which reported somewhat poorer ante and intra natal services. This difference may be attributed to achievement of NRHM. Introduction of Accredited Social Health Activist under the Mission has no doubt changed the health seeking behavior of rural beneficiaries, thanks to acceptability of their services to the community. In collaboration with ANM and other health care providers, ASHAs are doing a tremendous job in assuring care during pregnancy and ensuring institutional deliveries. But the success in post natal care is yet to be achieved, which has been much neglected for long.

No information was available on such services in any of the SCs studied. It has also been observed^[9] that rural women are secluded and confined after childbirth. This might be the cause of non-existence of post-natal care. Supported by a previous study^[5], it remains a matter of grave concern as the health of both mother and newborn can be boosted through such services.

It has been observed in this study that SC building was present in most places but were operational only at a few of them. Most of the SCs were having their own buildings. The findings of the present study are consistent with previous studies.^[1,2] Having an own building determines services in two ways - one, by easing delivery of services and another, by gaining the confidence of beneficiaries. But having one non-functional building definitely raises questions about the

Table 3: Norms followed for evaluating MCH related SC performance.^[14,15,16]

| Indicators | Norm (%) |
|-------------------------------------|----------|
| ANC registration | 100 |
| Early registration | 100 |
| ANC with 2TT/booster TT | 100 |
| ANC with 100 IFA tablets | 100 |
| High risk ANC detected and referred | 15 |
| Institutional deliveries | 80 |
| Birth weight recorded | 100 |
| PNC with 2 visits | 100 |
| Immunization of the children | 100 |

Table 4: MCH related performance of SCs in past one year (N = 16).

| Indicators | Very poor | Poor | Average | Good | Very good |
|------------------------------|-----------|----------|----------|----------|-----------|
| Early registration | 0(0%) | 0(0%) | 7(87.5%) | 1(12.5%) | 0(0%) |
| ANC registration | 0(0%) | 1(6.2%) | 3(18.8%) | 0(0%) | 12(75%) |
| TT immunization | 0(0%) | 2(12.5%) | 2(12.5%) | 2(12.5%) | 10(62.5%) |
| High risk pregnancy referral | 14(87.5%) | 1(6.2%) | 1(6.2%) | 0(0%) | 0(0%) |
| Institutional delivery | 1(6.2%) | 6(37.5%) | 3(18.8%) | 4(25%) | 2(12.5%) |
| Immunization of children | 1(6.2%) | 0(0%) | 1(6.2%) | 2(12.5%) | 12(75%) |
| Birth weight of newborn | 2(12.5%) | 4(25%) | 8(50%) | 1(6.2%) | 1(6.2%) |

credibility of the health care delivery system. Unless the buildings are utilized for the services they are meant to provide, the delivery of the health care services will not be in accordance with the established norms.^[10]

Lack of labor room or delivery practices at SCs is not a new finding.^[3] No or inadequate water supply and absence of electric facility were also documented earlier.^[1,4,11,12] These factors are important as we are still staggering with a poor figure of 41% institutional deliveries.^[3,13] If we want to improvise that at all, the SCs should be able to conduct deliveries at their own facility. In the long run, this would definitely boost the scenario of maternal health in the rural area.

It is apparent from the study that arrangement for waste disposal was not available in most of the SCs, which is consistent with the earlier finding.^[4] The residential facility for ANM was also absent in majority of sub centres. Surprisingly, none of the ANMs was residing in the concerned village even at those places where the sub centre had official residential facility. This is also in accordance with previous studies.^[3,4,9]

CONCLUSION:

The study found a staggering picture of the infrastructure of the Sub Centres, even after more than 60 years after independence. The basic health services

expected from them for the rural population are yet to be met. Although NRHM was launched with a holistic approach, many basic issues including availability of suitable infrastructure support at peripheral health centres are still required to be addressed. IPHS for SCs (Indian Public Health Standards for Sub Centres) provides ray of hope, if implemented throughout the country in its word and spirit. Special attention should be given on the provision of labor rooms as well as facilities like running water and electricity. For services to be delivered optimally, particularly if we consider institutional deliveries, ANM should stay at the village where the SC is located, given the fact that provision for her stay has been made at every SC. Unless we emphasize on strengthening SCs, the dream of a healthy nation will remain obscure as no population can improve the basic parameters of health, based only on tertiary health care. Hence, the primary health care should be the priority of health reform.

Limitations of the Study:

Although this study focused on some aspects of 'Maternal & Child Health', the following essential and important issues^[10] related to Sub Centre's overall performance review could not be dealt with in this study due to paucity of time and resources:

Use of Janani Suraksha Yojana; Identify suspected RTI/STI cases, Provide counseling, basic management and referral services; Counselling and referral for HIV/AIDS; Name based tracking of missed and left out ANC cases; Initiation of breast feeding; Ensuring post natal home visits on 0,3,7 & 42nd day for deliveries at home and sub centre (both for mother and baby); Additional visits for Low Birth Weight Baby; New borne care corner in the labour room to provide essential new borne care; Family Planning and Contraception; Safe Abortion Services (MTP); School Health Services; Control of local endemic diseases; Disease Surveillance and Integrated Disease Surveillance Project; Water and Sanitation; Outreach/ field services including Village Health and Nutrition Day (VHND), Home Visits, House to House Survey; Co-ordination and Monitoring; National Health Programmes; Community Level Interactions; Record Maintenance and Reporting; Monitoring mechanism; Quality Assurance and Accountability.

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