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RESEARCH ARTICLE

GAPS IN FUNCTIONING OF SUBCENTRES IN RURAL AREA OF JHANSI, UTTAR PRADESH

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ABSTRACT

Background: The actions of the health system should be responsive and financially fair, while treating people respectably. In the public sector, a Health Sub-centre is the most peripheral and first point of contact between the primary health care system and the community. A Sub-centre provides interface with the community at the grass-root level, providing all the primary health care services.
Objectives: to study the infrastructure available at sub-centres and to find out gaps in functioning of subcentres in rural area, Jhansi.
Methods: This was a cross-sectional study which was carried out during the period June 2016 to June 2017 in the sub-centres of district Jhansi, Uttar Pradesh. The data were collected by facility survey and interview technique on a pre-designed, structured and pre-tested schedule designed as per IPHS norms for the sub-centres.
Results: 70% of subcentes in Badagoan had designated government building available for the Sub-Centre while remaining 30% were located in Rented building. Around 47.4% of the beneficiaries are not satisfied with their visit to the sub centres.
Conclusions: System gaps remain in infrastructure, equipment, drug supplies, communication, and timely referral and transport facilities. However as the data suggests, many sub-centers lack basic facilities like water, electricity or toilets, which raise serious questions about quality of care provided.

INTRODUCTION

A health system consists of all the organizations, institutions, resources and people whose primary purpose is to improve health. The health system delivers promotive, preventive, curative and rehabilitative interventions through a combination of public health actions and the pyramid of health care facilities that deliver personal health care. The actions of the health system should be responsive and financially fair, while treating people respectably (World Health Organization, 2000). With the inception of community development movement in India in 1952, primary health centre and sub-centre became an integral part of the socio-economic development framework in block and village levels. Alma Ata declaration (1978) and National Health Policy (1983) have suggested reforms in primary health care to enhance the health care services. Bajaj Committee (1987) stressed the importance of health manpower development in its recommendations. In the public sector, a Health Sub-centre is the most peripheral and first point of contact between the primary health care system and the community. A Sub-centre provides interface with the community at the grass-root level, providing all the primary health care services. The purpose of the Health Sub-centre is largely preventive and promotive, but it also provides a basic level of curative care.

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The Indian Public Health Standards (IPHS) are being prescribed to provide basic primary health care services to the community and achieve and maintain an acceptable standard of quality of care (IPHS guidelines, 2012). Finding out the gaps in facilities existing at the sub-centres in comparison to IPHS is warranted to assist the authorities and manage upgradation of the sub-centers in a timely and effective manner. It has been noted that many of development objectives have not been realized owing to gaps in functioning of subcentres in rural area. Hence, the need to evaluate the subcentres was felt in rural area. The present study will reflect the existing state of health infrastructure and gaps in functioning of the sub-centers.

Objectives

- To study the infrastructure available at subcentres in rural area, Jhansi
- To find out gaps in functioning of subcentres in rural area, Jhansi

MATERIALS AND METHODS

The present study was carried out in Jhansi city. District Jhansi has population of 2,000,755 (as per 2011 census), spread over an area of 5028 sq km, of which 58.22% population is in rural area. District Jhansi has 8 Blocks.

Study Design: This was a cross-sectional study which was carried out in the district Jhansi of Uttar Pradesh.

Study Area: There are eight community development blocks and 326 sub-centers in the district. Out of eight, two community development blocks were namely Badagoan and Chirgoan selected for the study. These community blocks were purposively selected because these are field practice area attached to Department of Community Medicine, M.L.B. Medical College, and Jhansi.

Study Period: This cross-sectional study was carried out during the period June 2016 to June 2017 in the district Jhansi of Uttar Pradesh.

Sampling: To get the representative sample from these community development blocks, ten sub-centers from each of two blocks were selected for the study purpose simple random sampling using the lottery technique. 10 mothers having children of age <5 years were taken from each subcentre during visits to subcentres. So total of 200 mothers were included.

Study Unit: The study units for observational study were the selected Sub centers from two PHCs, their female multipurpose workers /ANM & mother beneficiaries visiting sub-centres.

Methodology: The data were collected by facility survey and interview technique on a pre-designed, structured and pre-tested schedule designed as per IPHS norms for the sub-centres (IPHS guidelines, 2012).

Data collection and analysis: The data collected was tabulated, analyzed using percentages, means and median (wherever necessary) by using Microsoft Excel software and interpretations were made accordingly.

RESULTS

Table1 shows that in Badagoan out of 10, 5 subcentres (50%) are located within village locality, 50% of subcentres which are far from village locality and 80% are located at an easily accessible area. People have to travel upto 3.5(median 4, Range 2-10) to reach subcentre which can take around 25(median=30 Range15-80) minutes(By two wheeler/Auto). Distance (in km) between PHC and SC and CHC and SC was 12.5 and 18.7 km respectively. In Chirgoan out of 10, 4 subcentres (40%) were located within village locality, 60% of subcentres which are far from village locality and 70% are located at an easily accessible area. People have to travel upto 4.2(median=4 Range=1-9) to reach subcentre which can take around 35(median=30.2 Range 10-70).

Table1. Location of Subcentres:

Parameter	Sub-centers	
	Badagoan(N=10)	Chirgoan(N=10)
Located Within village locality	5(50)	4(40)
Far from village locality	5(50)	6(60)
Located at an easily accessible area	8(80)	7(70)
Distance of subcentre from farthest village(in kms)	3.5(Median 4,Range=2-10)	4.2(Median=4. Range=1-9)
Time taken to reach the farthest village (in minutes)	25(Median=30 ,Range15-80)	35(Median=30.2,Range 10-70)
Distance (in km) between	12.5(Median=10,	10.9(Median=9,
PHC and SC	Range= 3-20)	Range=2-25)
Distance (in km) between	18.7(Median=15,	16.6(Median=15,
CHC and SC	Range= 3-30)	Range=4-35)

Table2. Building of Subcentres

Parameter	Sub-centers	
	Badagoan (N=10)	Chirgoan (N=10)
Number of rooms	2(median=2) Range 1-5	2(median=2) Range 1-5
Designated government building available for the Sub- Centre?	7(70)	6(60)
If no, Where is Sub- Centre located? (Rented building)	3(30)	4(40)
What is the type of Subcentre building?		
a.Kachha	0	0
b.Semi-pucca	0	0
c.Pucca	10(100)	10(100)
What is the present condition of the existing building?		
a.Good	5(50)	4(40)
b.satisfactory	3(30)	3(30)
c.Needs repair	2(20)	3(30)
Whether the cleanliness of Subcentre is		
a.Good	3(30)	2(20)
b.Fair	3(30)	3(30)
c.Poor	4(40)	5(50)
Are any of the following close to the Sub Centre?(Mutiple responses)		
a.Garbage dump,	4(40)	3(30)
b.Cattle shed,	2(20)	2(20)
c.Stagnant pool,	3(30)	4(40)
d.Pollution from industry	0	0
e.None	4(40)	3(30)
Prominent display boards in local Language	3(30)	2(20)
Separate utilities for males and females	0	0
Suggestion and complaint box	0	0

Figure in parentheses show the percentage of subcentres

Table3. Accessibility of Sub-Centres

Timing suitability of the Sub-Centres	Percentages of beneficiaries (%)
Time taken to reach the Sub-Centre	
i. < 10 minutes	40.00
ii. Between 10 and 20 minutes	22.50
iii. Between 20 and 30 minutes	12.50
iv. More than 30 minutes	25
Means of Transport to reach Sub-Centre	
i. On foot	82.50
ii. By cycle	11.25
iii. By motorcycle/other vehicle	6.25
Waiting time at the Sub-Centre	
i. < 10 minutes	60.25
ii. Between 10 and 20 minutes	20.75
iii. Between 20 and 30 minutes	12.25
iv. More than 30 minutes	6.75

Table4. Client Perception of Quality of Service Delivery Offered

	Percentage of clients
Have you come here for a medical problem before or other service and received Treatment or service?	
Yes, % of Total	62
No, % of Total(see below for % of total who mention specific reason/s)	38
Staff absent	32
Centre shut	2.4
No medicines	36
No facilities	4.7
Long wait	10
others	2
Are you satisfied with your visit today?	
No ,% of total	
Staff absent	47.4
Centre shut	26.3
No medicines	0
No facilities	43
Long wait	3.5
others	9.6
Yes ,% of total	52.6
Staff present	14.9
Centre timings good	2.6
Free medicines	18.4
Good facilities	5.3
No wait	0.9
Other-Delivery	13.2

(By two wheeler/Auto) Distance (in km) between PHC and SC and CHC and SC was10.9 km and 16.6 km km repectively. Table 2 shows that 70% of subcentes in Badagoan had designated government building available for the Sub- Centre while remaining 30% were located in Rented building similarly in Chirgoan 60% of subcentes had designated government building available for the Sub- Centre while remaining 40% were located in Rented building. All the 20 ssubcentres (100%) were having pucca building. 50% of subcentres in Badagoan and 40% of subcentres in Chirgoan had good present condition of the existing building. Regarding cleanliness of Sub -Centre only 30% of subcentres in Badagoan and 20% in Chirgoan were in good condition. Table 3 shows accessibility of Sub-centres Regarding time taken to reach the sub centres, amongst the beneficiaries 40.00% reach within 10 mins. 25.00% of the beneficiaries they need more than 30 minutes to reach the sub centres followed by 22.50 % and 12.50 % needs 10-20 minutes and 20-30 minutes to reach the sub centres respectively. Around 82.50 % of beneficiaries reach on foot to the sub centre whereas 11.25 % and 6.25 % uses bicycle and motor cycle/other vehicle as a mean of transport to reach the sub centre. For waiting time at the sub centre 60.25% of the beneficiaries have to wait for less than 10 mins. Around 20.75 % beneficiaries have to wait for 10-20 mins followed by 12.25% and 6.75% of the beneficiaries waited for 20-30 mins and more than 30 mins respectively.

Table 4 shows that regarding patients perception of quality of service delivered, 62.00% of the beneficiaries come here before for medical problem and received treatment and services. Out of 38.00% who have not received any treatment and services, 36.00% beneficiaries responded that there were no medicines followed by 32.00% responded that there were no staff or staff absent during their visit.10.00% of the beneficiaries experienced that they have to wait for long duration. Around 2.4% and 4.7% found the centre shut and no facilities during their visit to the sub centres. For satisfaction of the beneficiaries 52.6% were satisfied with their visit.18.4% and s14.9 % had got experience of presence of staff and free medicines available during their visit are the reason for their satisfaction. Few of them felt that centre timings are good for visit, good facilities available, not to wait for the services. Around 47.4% of the beneficiaries are not satisfied with their visit to the sub centres. Of them majority i.e. 43.00% found that there is no medicines available and 26.3% of them were not satisfied with the services because of absence of staff from duty.

DISCUSSION

The National Rural Health Mission (NRHM) provide effective health care to rural population in the country with special focus

on states, which have poorer health outcomes and inadequate public health infrastructure and manpower. The current study get into sight of functioning of subcentres with the objectives to study subcentres infrastructure, manpower, services provided and various other parameters (Government of India: National Rural Health Mission, 2005-2012). In present study it was found that average subcentre population was 4540 (Median=4610, Range=2127-6868) in Badagaon, average number of villages per subcentre was 3 (Median=3,Range=1-5) and distance from Medical College (km) was 12 km while in Chirgaon average sub-center population was 4024 (Median =3730,Range=2012-5247), average number of villages per subcentre was 2 (Median=3,Range= 2-6) and distance from Medical College(km) was 30 km. Findings were quite similar to study of Lal *et al.* (2001) which mentioned that out of 10 subcentres surveyed each subcentre covered manageable population of 5000 or less (Lal *et al.,* 2001), Bajpai *et al.* (2008) study where average sub-center population was 4424, average number of villages per subcentre was 2 in Andhra Pradesh, average sub-center population was 4285 and average number of villages per subcentre was 4 in Karnataka (Bajpai *et al.,* 2008) and Reddy *et al.* (2012) which found that the average population covered by subcentre was 4833 (median 4277 and range 1173-10,250) the variation in population covered by each subcentre was too high but in present study variation was not so high (Reddy *et al.,* 2012). Significant gaps in the manpower, specifically in relation to availability of male and additional female worker, existed as were seen in many of the other states (National Rural Health Mission, 2008; National Rural Health Mission, Government of India, 2009). Concerned State Governments might look in the matter urgently and should recruit the required staff on regular or contractual (with reasonable wages) basis as early as possible. As per IPHS, the SCs should provide residential facility for auxiliary nurse midwives (ANMs) residence were there but most of ANM were not staying at subcentres. This will definitely impair the level of functioning of the respective SCs. SCs play a crucial role to decrease the infant mortality rate (IMR) and maternal mortality rate (MMR) in the rural areas, deficient manpower would definitely impair the level of health care provided to the community. The presence of the ANM all 24 hours at the SCs is essential for the people to avail the health services. Only 25 per cent of the respondents took more than 30 minutes to reach the sub-centres. More than 80 per cent of the respondents visited the sub-centres on foot. However, 11.25 per cent used public transport/ buses. A small percentage of them (6.25%) reported that they used bicycles and rickshaws as modes of transport to reach the sub-centres. The respondents reported that they need not wait for a long time to consult the ANM. More than 70 per cent had to wait less than 15 minutes for their consultation with the ANM. Almost all the respondents were satisfied with the behaviour and quality of services being provided by the ANMs, some findings were in contrast to present study like ANM were not available round the clock, some respondents complained about timimgs as most of subcentres were closed after afternoon (Mittra *et al.,* 2000).

Conclusion

Government of India has laid down various health-related goals to achieve Millennium Developmental Goals (MDGs), National Health Policy goals and various goals under NRHM. This study revealed that there were significant gaps in all the parameters related to IPHS at the level of sub-centers. System gaps remain in infrastructure, equipment, drug supplies, communication, and timely referral and transport facilities. However as the data suggests, many sub-centers lack basic facilities like water, electricity or toilets, which raise serious questions about quality of care provided. Health worker availability is largely insufficient at subcentres. A sustainable long term policy for human resource planning needs to be developed including transfer and recruitment policies.

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