

Spatial Analysis of Health Care Facilities in Sikhar Block of Mirzapur District

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Abstract : Health refers to the overall state of well-being of an individual, including physical, internal, and emotional aspects. It includes the capability to serve and perform day-to-day conditioning, as well as the absence of disorder or illness. Good health enables beings to lead fulfilling and productive lives. Health is significant because it is essential for overall well-being and quality of life. Good health allows person to exhibit complete wellbeing in day-to-day conditioning, work, and social relations. Also, good health can lead to increased productivity and reduced healthcare costs, poor health on the other hand can lead to dented quality of life, increased medical charges, and reduced productivity. Thus, maintaining good health is pivotal for both individuals and society as a whole. The present study is an attempt to explore the ground reality health services functioning in Shikhar development block of Mirzapur district, for the said purpose descriptive research design has been figured to conduct the entire work. In addition to that both primary and secondary data have been included to verify the validity of the current work, research suggest that the study area is gaining medical facilities, but that isn't acceptable and satisfactory. So, reforms at every degree are demanded for a better health care system.

IndexTerms – Health,PHC,Population,CHC,Medical

I. INTRODUCTION

Health is a state of a person where he or she can remain free of illness. it also includes the internal and social well-being of that person. WHO- " Health is a state of complete physical internal and social good and not simply the absence of complaint or infirmity". Centre for Disease Control and prevention- " Health is the capability to maintain physical intellectual and social welfare and to manage with the stresses of day-to-day life". The Healthcare system in India can we divided into two orders- private and public. The public health care services are managed by the government. The private health facilities are privately commanded and are more premium. The Healthcare system in India is still poor and needs to concentrate more to deliver quality care to all citizens. According to the Indian constitution it's the duty of the state to increase the standard of living and nutrition situations of its citizens to upgrade public health. Still, we see an increase in private medical services but no refinement in public health services. The government should make an effort to guarantee that the underprivileged have access to the public health system and receive basic necessities as well.

" India inequality report 2021 India's Unequal Health Care Story" released by Oxfam India shows that the socio-financial inequalities bleed into the health sector and disproportionately effect health issues of marginalized communities due to the absence of Universal Health Coverage, some findings of report are applicable to this exploration are, National Health profile in 2017 recorded one government allopathic doctor for every, 1089 people and one state run medical center for every, 90343 people. The investment in public health structure is so little that the number of beds in the country has actually come down from 9 bed per 10000 persons in the 2010 Human Development Report, to 5 beds per 10000 persons in current moment (1).

I. OBJECTIVE

The ideal of this exploration is to put forward a comprehensive study of government funded Health Care Centre's and their function to deliver Health Care facilities in study area-

- To gather information about health care structure and services available at CHC, PHC and Sub- centres.
- To determine the gap and loopholes between current Public Health Care bodies and the government of India's standard conditions for healthcare institutions.
- To access the demanded number of healthcare installations in the study area.

II. STUDY AREA

Sikhar block of district Mirzapur is the center of the study, which is situated the left bank of river Ganga and encircled by the flanking blocks Narayanpur, Pahari, Rajgarh and Majhawan. Sikhar block extend between $82^{\circ} 43' E$ to $82^{\circ} 57' E$ longitude and between $25^{\circ} 6' N$ to $25^{\circ} 13' N$ latitude. Sikhar block Covers an area of 117.2 km per square. As per the 2011 census sikhar block population is 90278 (47114 Males and 43164 Females). Study area consists of 81 villages, out of which 70 villages are inhabited, whereas 11 villages are unsettled. These 81 Villages are settled in 6 nyay panchayat (Bagaha, Hansipur, Dhanaita, Sikhar, Meria, Arajliline sultanpur) of the block.

III. DATABASE AND METHODOLOGY

The present study is based on primary and secondary data obtained from different sources. Secondary data have been collected from the census handbook of Mirzapur district, district statistical year books, Rural Health Statistics 2020-21 and some information from block headquarters. CHC, PHC and Sub- centres related primary data were obtained by personal survey and interviews

conducted during mid-August to October 2021. Surveys were administered to a sample of residents of the Sikhar block to gather information on their access to healthcare and their satisfaction with the health care services available. Interviews were conducted with healthcare providers and government officials to gather information on the current state of healthcare in the region. Content analysis was used to gather information on government health care policies and programs in the region.

IV. PUBLIC HEALTHCARE SYSTEM: STRUCTURE AND CURRENT SCENARIO

Public health care services are a network of health centres and hospitals run by the government. They are funded by the taxes that public pays to the government. Primary Health Centers are located in each community and are managed by a district hospital at the district level. They are referred to as public because they aim to offer medical services to the general public at a very cheap or no cost so that people from all socio-economic backgrounds can use them.

Healthcare in India is delivered through a three-tier structure of health services comprising of primary, secondary and tertiary health care facilities. The primary tier health care system would have three types of health care institutions, namely a Sub-center (Sc), Primary Health Centre (PHC), Community Health Centre (CHC). The district Hospital acts as the secondary tier health care system for the urban population. Healthcare institutions with advanced and complex health facilities act as tertiary healthcare centres [2].

The health care infrastructure in rural areas has been developed as a three-tier system on the basis of population norms, namely a Sub-center (Sc) for a population of 3,000 to 5,000, a Primary Health Centre (PHC) for 20,000 to 30,000 population and Community Health Centre (CHC) for 80,000 to 1,20,000 population. PHC acts as a referral unit for 6 Sub-centres and CHC acts as a referral Centre for every 4 PHC.

Table 1: population norms for the establishment of healthcare centres

Source: CMO, mirzapur district

Centre	Population Norms	
	Plain Area	Hilly/Tribal/Difficult Area
Sub-Centre	5000	3000
PHC	30000	20000
CHC	120000	80000

Health care facilities in the study area, which is Sikhar block facilitated with two PHC and 14 Sub-centres. Two PHC are located at two different places in the study area, PHC Magaraha located in Magaraha village and New PHC Khaira located in Bagaha village. The above discussion signifies that only 2 Nyay Panchayat are equipped with PHCs, while 4 out of a total 6 are lacking PHCs and population of these 4 Nyay Panchayat are depend on other PHCs. It is because, in some Nyay Panchayat, the total population is lesser than the required population for the establishment of PHCs.

Table no. 2 shows the distribution of Sub-centres in different Nyay Panchayat of the study area, which shows that Sikhar Nyay Panchayat has enabled with 4 sub-centres and Arajiline sultanpur Nyay Panchayat has 3 sub-centres while three Nyay Panchayat (Bagaha, Dhanaita, Meria) are being served by 2 sub-centres each. Hansipur Nyay Panchayat has one sub-centre. Sikhar, Meria and Dhanaita Nyay Panchayat are resourceful from the above point of view but Bagaha, Hansipur, Arajiline sultanpur Nyay Panchayat show less facility of health care.

Table 2: distribution of sub-centres in nyay panchayats of sikhar block.

Source: district census handbook, mirzapur [2011].

Nyay Panchayat	Area (km ²)	Total Population	Sub-Centres
Bagaha	36.50	14811	2
Hansipur	21.41	10122	1
Dhanaita	8.74	12874	2
Sikhar	13.82	17982	4
Meria	16.11	10536	2

Arajiline Sultanpur	20.62	23953	3
Sikhar Block	117.2	90278	14

V. COMMUNITY HEALTH CENTRE: FUNCTION AND FACILITIES

Community Health Centre (CHC) in India is a secondary level of healthcare facility. It provides comprehensive primary health care services to rural populations and serves as a referral center for the Primary Health Centre (PHC) and sub-centres in its catchment area. CHCs are located in rural areas and are equipped to provide a wide range of services including maternal and child health, family planning, immunization, basic curative and preventive care, and control of communicable diseases. CHCs also provide specialist consultation, laboratory services, and emergency care. They are staffed by a team of doctors, nurses, and paramedics. CHCs play a critical role in providing accessible and quality health services to rural communities in India.

As per Indian public health standards (IPHS) guidelines for Community Health centres (revised) 2012, the CHCs is where designed to provide referral health care for cases from the PHC level and for cases in need of specialist care approaching the centre directly. 4 PHC are included under each CHC thus catering to approximately 80,000 population in tribal/hilly/ desert areas and 1,20,000 population for plane areas The CHC should have 30 indoor beds with one operation theatre, labour room, x- ray, ECG and laboratory facility. CHC providing OPD services and IPD services and it's included specialist care in General, Medicine, Surgery, Obstetrics & Gynaecology, Paediatrics, Dental and Ayush services. Apart from its Eye specialist services (at one for every 5 CHCs). Emergency services, Laboratory services and National Health programmes. Every CHC 5 medical specialists are mandatory which include a general surgeon, physician, obstetrician/gynaecologist, anaesthetist and paediatrician, four general duty officers, one dental surgeon (BDS), two general duty medical officers (MBBS), one medical officer- AYUSH (graduate in AYUSH). They should be assisted by 10 staff nurses, 11 paramedical, 13 other staff, 6 administrative staff and the same number of Group D staff [3].

There are 5481 CHCs functioning in rural areas of the country as on 31st March 2021, at national level there is increase of 2135 number of CHCs from the year 2005 as per Rural Health Statistics Bulletin 2020- 21 [4].

In study area, there is absence of CHC, as per norms by IPHS there should be CHC on population of 1,20,000. According to 2011 census population of sikhar block is 90,278, which is less than par. According to field data gathered and some surveys conducted by local authorities there is expected population 1,05,961. By this rate of growth, it's expected that it will cross the required number of population for CHC establishment in few years.

The absence of CHC has resulted in an increase in number of patients seeking treatment at private clinics and hospitals, that cost heavy on purse and lives of peoples, due to inexperienced and quack running these health care centres. unavailability of CHC is not just a health issue but also a humanitarian one. The lack of basic health care services is putting the lives of countless people at risk. Therefore, government must take immediate action to establish CHC in sikhar block and ensure that it is equipped with necessary resource to provide quality health care services to resident of block.

VI. PRIMARY HEALTH CENTRE: FUNCTION AND FACILITIES

Primary Health Care (PHC) in India refers to the basic healthcare services that are provided to individuals and communities at the grassroots level. It is the first point of contact for individuals seeking healthcare and aims to address the most common and pressing health issues in the community. PHC services in India include maternal and child health, family planning, immunization, basic curative and preventive care, and control of communicable diseases. The Indian government has implemented various programs to strengthen and expand the PHC system in the country, such as the National Rural Health Mission (NRHM) and the National Health Mission (NHM). PHC covers a population of 20,000 in hilly/tribal/difficult areas and 30,000 population in plain areas with 6 Indoor/observation beds. It acts as a referral unit for 6 Sub centres and refer out cases to CHC and higher order public hospitals located at sub district and district level. PHC provides OPD services, 24 hours emergency services, referral services and in-patient services. As per IPHS guidelines for PHC (revised) 2012, from service delivery angle, PHCs may be of two types, depending upon the delivery case load - Type A and Type B

- **Type A PHC:** PHC with fewer than 20 deliveries per month's delivery load.
- **Type B PHC:** PHC with a monthly delivery load of 20 or more deliveries.

Type A PHC will be served by two medical officers (one MBBS and one AYUSH), and 11 other staff, whereas type B PHC is attended by two medical officers (one MBBS and one AYUSH) and 12 other employees.

There are 25,140 PHCs functioning in rural areas of the country as on 31st March 2021, at national level there is increase of 1904 PHCs in 2021 with comparison of the year 2005, as per Rural Health Statistics Bulletin 2020-21. There are two PHCs in study area, which constitute of one Type B PHC in Magaraha village and Type A PHC, New PHC khaira located in Bagaha village. Both of the PHC have two medical officers (one MBBS, one AYUSH) and PHC Magaraha have 8 staff (6 paramedic, 2 others) while PHC Khaira have 6 staff (5 paramedic, one other). PHC Magaraha also runs several government programme including mother and child health care programme and COVID-19 vaccination drive among neighbouring villages. These health care centres are in alarming deficiency of paramedical and support staff for proper utilization medical resources. Hence there is immediate need for focused and dedicated improvement for full extent use of medical resources of PHC, so that it can provide better and efficient health services to people of Sikhar block.

VII. SUB-CENTRE: FUNCTION AND FACILITIES

The Sub- centres is the most peripheral and first connect point between the primary health care system and the community. In order to modify behaviour and provide services for many programmes like mother and child health, family welfare, nutrition, immunisation, diarrhoea control, communicable diseases, and non-communicable diseases, sub-centers are given interpersonal communication-related activities. Sub- centres cover a population of 3,000 in tribal/hilly areas and 5,000 population in plain areas.

As per IPHS guidelines Sub- centres have been categorized in to 2 types (Type A and B) on the basis of catchment areas, health seeking behaviour, case load, location of other facilities like PHC/CHC/Hospitals in the vicinity of Sub-centre. Type A Sub- centre will provide all recommended services expect that the facilities for conducting delivery will not be available here. Type B Sub-centre will provide all recommended services including facilities for conducting deliveries at the Sc itself. Although the main focus shall be to promote institutional deliveries however, the facilities for attending to home deliveries shall remain available at both types of Sub- centre.

According to IPHS, type A Sub-centres need two ANMs (one is necessary and the other is preferred), as well as one male health worker. For type B Sub-centres two ANM (essential) and one health worker Male (essential). One staff nurse or ANM (if staff nurse not available) is to be provided for type B Sub-centres (desirable), if number of deliveries at the Sub-centres is 20 or more in a month.

There are 156101 Sub-centres functioning in rural areas of the country as on 31st March 2021, at national level there is increase of 10075 number of Sub-centres from the year 2005 as per Rural Health Statistics Bulletin 2020-21.

In the study area 14 Sub-center are located and all of them are Type B Sub-centre. There is concerning shortage of Sub-centre in study area which cause major cut off people from primary health services. The major cause of inefficient working of Sub-centre is due to poor infrastructure and lack of medical expertise in staffs, irregular working behaviour of staff also cause unawareness among the people, which cause inefficient working of Sub-centre. In all Sub-centers shortage of staff (health workers) have been observed during field work, and its effect is concerning and can cause many medical complexities.

Table 3

Block	CHC			PHC			Sub-Centres		
	Required	Existing	Gap	Required	Existing	Gap	Required	Existing	Gap
Sikhar	1	0	1	3	2	1	18	14	4

From analyzing the data of table, one can conclude that clearly require a CHC in near future to improve health care services as well as one PHC and four Sub- centre with upgraded Infrastructure also needed.

VII. CONCLUSION

India has always been a welfare state that works hard to offer each of its citizens better health care. As part of this effort, some rules and guidelines have been established and are occasionally amended. The country's three-tiered healthcare system is an effort on the parts of the federal and state governments to put more emphasis on formulating better health care-related legislation. In the study area Sikhar block there are some common issues faced by health care facilities are Lack of proper infrastructure like proper ventilation, clean drinking water and sanitation. Lack of medical supply and equipment which can compromise the quality of medical care they provide; low accessibility and stigma are some of the core factors that affect health care model. Since these factors affect the health care but the parallelly they also provided medical care during COVID-19 pandemic at their full extent. Hence the gap and issues faced by health care facilities from their standard norms set by IPHS must be fulfilled for proper and complete wellbeing for people of Sikhar block.

VIII. REFERENCES

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