

GEOGRAPHICAL INEQUALITIES IN ACCESS TO PUBLIC HEALTHCARE FACILITIES IN RURAL WEST BENGAL: EXPLORING MAJOR HEALTH SYSTEM CHALLENGES

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Abstract

Geographical inequality in access to healthcare services is profound in West Bengal. This study aims to assess spatial inequalities in access to public healthcare services in rural West Bengal. Two geographically distinct community development (CD) blocks have been taken as case studies, i.e., Kaliaganj and Goalpokhar-I in Uttar Dinajpur district. Both primary and secondary databases were used for this analysis, and mixed method approaches were used to assess the healthcare services. The findings show that a skewed geographical distribution of healthcare services within the State and districts has had a significant negative impact on rural communities. The existing rural-urban inequality in health services is remarkably evident, and people from rural backgrounds face difficulty during emergency health episodes due to a lack of healthcare services, poor physical accessibility, etc. Geographical location emerged as a significant factor in the inequality in access to health services in West Bengal .

Keywords: Inequality, Access, Public Healthcare System, Quality of Healthcare, Gini-Coefficient, Co-Efficient of Variation.

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Introduction

Health is one of the most important aspects of human development (Sen, 2000), and access to healthcare is essential for good health, quality of life and human empowerment (Rao & Choudhury, 2012). The term 'access' refers to the availability of opportunities, whereas utilisation is manifested in those opportunities (Allin et al., 2007). There are six essential dimensions related to the term 'access', namely 'availability, accessibility, accommodation, affordability, acceptability, and awareness' (Aday & Andersen, 1974; Saurman, 2016). Studies have also differentiated between potential accessibility (Haynes et al., 2003) or having access and actual accessibility (gaining access) (Whitehead et al., 1997). The concept of social inequity and its impact on the accessibility of healthcare resources are also widely researched topics (CSDH, 2008). Regional variations in health facilities in developing countries in accordance with the well-being of people are also a well-established factor that has emerged in many studies (OECD, 2014). In addition, structural and qualitative determinants of healthcare and lack of management processes are some of the key factors for low coverage and utilisation of healthcare resources.

Similarly, the rural healthcare system in India is suffering severely from several difficulties, i.e., the shortage of infrastructure, lack of trained human resources, poor quality of care, physical and geographical hindrances, low level of efficiency in resource utilisation, etc. (Sundari Ravindran, Gaitonde & Srinivas, 2018). Moreover, there are vast differences in the efficiency and quality of the healthcare system across the States in India (Mills, Acharya & Powell-Jackson, 2013). Wide regional inequality in the availability and accessibility of healthcare services is also prevalent in West Bengal (Nag, 1983). Studies have shown that rural communities, particularly disadvantaged sections, face additional economic burdens in seeking access to healthcare due to geographical distances and transportation costs, as well as lack of access to health communication infrastructure in rural West Bengal (Dutta & Dutta, 2013; Barman &

Dutta, 2013). Due to low access to public health facilities, rural people had to opt for private healthcare facilities, which were beyond their affordability (Soman, 2002), often going to low-quality rural medical practitioners, quacks and religious healers during different episodes of health treatment. People's perceptions and cultural barriers to acceptance of health services also play crucial roles in rural societies in India (Dutta & Dutta, 2013). Rural-urban disparities in healthcare facilities among the districts in terms of availability and efficiency of healthcare services is a major problem in West Bengal (Purohit, 2008). But very few studies have been conducted on this issue in rural West Bengal, which incorporated the difficulties faced by the rural population as well as the challenges faced by health workers. Thus, the study tries to assess the level of spatial inequality in accessing public healthcare services in rural West Bengal through qualitative ground assessment. Two CD blocks of the district have been investigated by taking several reasons into consideration. For the last two decades, Uttar Dinajpur has been one of the laggard districts in terms of healthcare status and other socio-economic development and demographic aspects (Purohit, 2008; Ghosh, 2013). Some studies also show that Uttar Dinajpur district is one of the worst performers in utilising healthcare services (Bose & Adhikari, 2008; Govt. of West Bengal, 2010; Government of West Bengal, 2004).

Methodology

Study Design and Data Sources: The study has adopted a mixed method using both primary and secondary data. A semi-structured questionnaire containing different quality parameters (like existing hospital resources, functional and non-functional infrastructure, cleanliness of the premises, and other services) of health centres has been asked in the field survey with the health workers and local residents. Questions about personal experiences and opinions regarding existing healthcare facilities were also included. Apart from primary surveys, data from secondary sources such as government reports (Rural Health Statistics (RHS), Health on March, NFHS-4) was used. In order to measure the

healthcare status and spatial inequalities in various key health indicators, we have used descriptive statistics and Gini Coefficient, respectively.

Study Setting: Uttar Dinajpur is a predominantly agrarian and rural district of West Bengal that shares a long border with Bangladesh. The district has nine sub-districts with 344 Sub-Centres (SCs), 20 Primary Health Centres (PHCs), seven Block Primary Health Centres (BPHCs), two State general hospitals, one sub-divisional hospital, and one district hospital covering a population of 30.07 lakh. The selected blocks within the district, namely Goalpokhar I (population: 3,26,120) and Kaliyaganj (population: 2,77,672), have 43 and 34 health centres, respectively. From two blocks, four villages

were selected. A large share of the population in these areas belongs to disadvantaged sections (SECC, 2011).

Selection of the Study Area: Uttar Dinajpur was chosen due to its low performance in healthcare access among the districts in West Bengal (Figure 2). Further, an attempt was made to divide the study area into two segments based on the criteria of physical accessibility (distance and road connectivity). Two community development blocks (CDBs), i.e., Goalpokhar-I and Kaliyaganj, were selected from each segment. Information on existing healthcare facilities, utilisation, and challenges was collected from the two villages of each CDB.

Figure 1

Location of the Study Areas

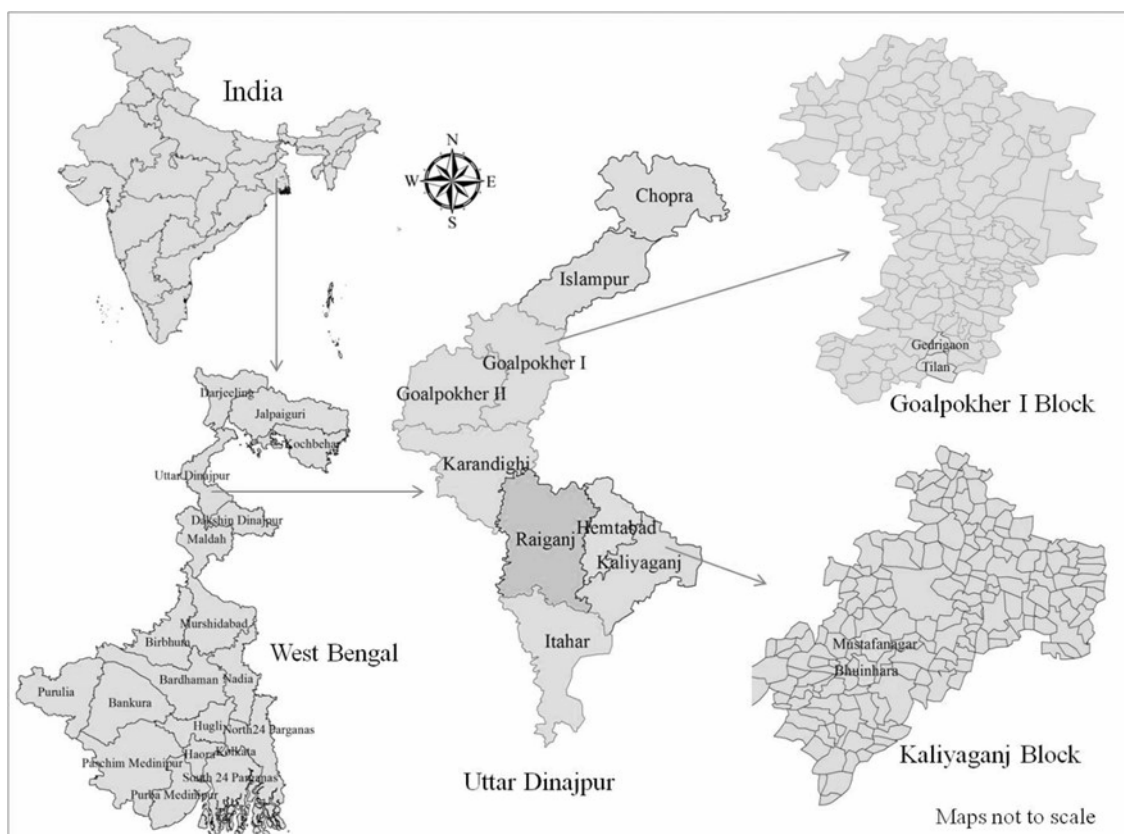
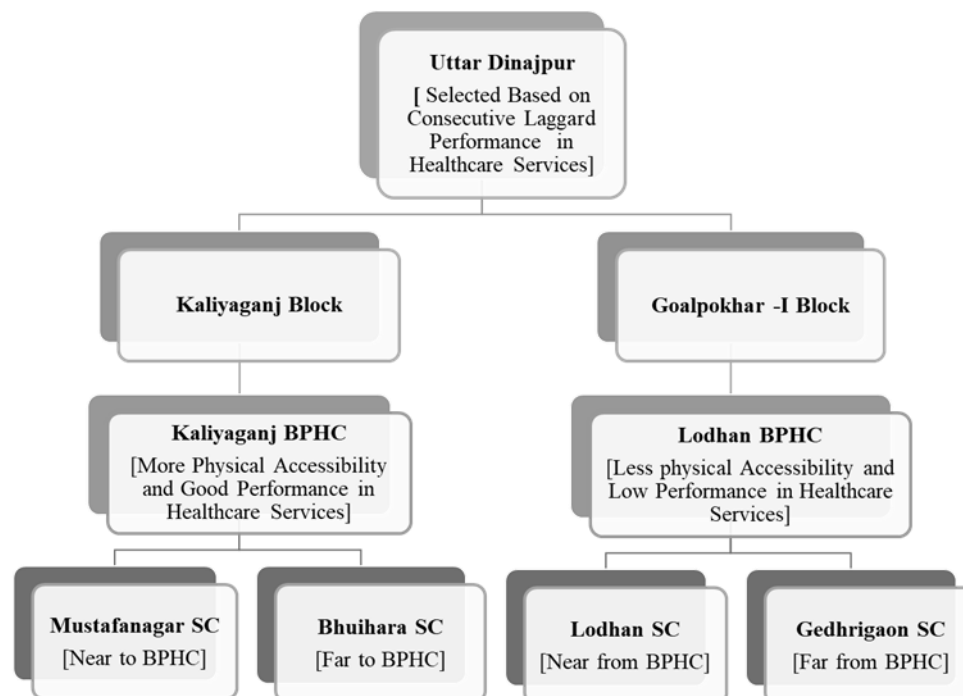


Figure 2*Simplified Framework of Field Selection***Table 1***Shortfall of Health Centres (As per 2011 Census Population) in West Bengal*

Area	The total population in the rural area (in million)	Estimated tribal/hilly/desert areas in rural areas (in million)	Type of hospital	Required number as per population norm	Current position (numbers)	Shortfall (numbers)	Shortfall (per cent)
West Bengal	62.2	5.5	SC	13186	10356	2830	21
			PHC	2166	909	1257	58
			CHC	541	348	193	36
India	833.0	168.7	SC	189094	148366	43776	23
			PHC	30565	24049	7954	26
			CHC	7631	4833	3044	40

Source: Table 11, Pp. 49, Rural Health Statistics in India, 2012, MoHFW, GoI.

The Shortfall of Health Centres and Functional Infrastructure in West Bengal: In West Bengal, the SC-PHC ratio (i.e., the number of SCs served per PHC) is 11, almost twice the national average

(i.e., 6 SCs per 1 PHC). Overall, there is a 21 per cent deficit in Sub-Centres in West Bengal (Table 1). In the case of currently functioning SCs, only 23 per cent have quarters for auxiliary Nurse and

Midwives (ANM), 68 per cent are without regular water supply facilities, and 34 per cent have no electricity supply. Similarly, at the PHC level, there is an urgent need for 2166 PHCs to cater to the requirement of the population as per 2011 Census. It is twice the size of currently functioning PHCs (909) in the State, which accounts for 58 per cent of the shortfall. At the facility level, all the PHCs are connected with all-weather roads, and equipped with regular water and electricity connections. Only 18 per cent have a functional operation theatre. In the case of CHCs, a shortfall of 36 per cent has been recorded as per the 2011 census.

The Shortfall of Human Resources in Health Centres in West Bengal:

In the case of human resources, 44 per cent of doctors' positions are still vacant in PHCs. Among the currently functioning PHCs, 18 per cent, 81 per cent, and 1 per cent of PHCs are running with two doctors, one doctor, and no doctors, respectively. Moreover, 92 per cent of PHCs were running without women doctors, and there were no Lady Health Visitors (LHV) or Male Health Assistants. At the CHC level, 87 per cent of specialist positions were vacant. In the case of specialists, two-thirds of the current required positions of obstetricians and gynaecologists and 83 per cent of paediatricians were vacant. Only general duty medical officers (95 per cent) and physicians (100 per cent) were in charge of the CHCs. In addition, one-third of the sanctioned positions of nursing staff and radiographers were also vacant. In the case of other medical staff in PHCs, 99.5 per cent and 39.2 per cent were running without lab technicians or pharmacists, respectively. In the case of other paramedical staff, 60 per cent of lab technicians and 18 per cent of pharmacists were lying vacant in CHCs. So, acute shortage of specialists, technicians, and paramedical staff is evident at the CHC level,

which in turn, adversely affects the existing facilities and the quality of services provided.

Population-Health Centre Ratio in West Bengal:

At the Sub-Centre level, the average population covered per SC is 6008 in West Bengal, which is greater than the all-India average, i.e., 5615 persons (RHS, 2012). In the case of PHC, it is 68,442 and 34,641 persons for West Bengal and India, respectively. On average, three PHCs are served per CHC in the State. Similarly, 44 villages are being covered per PHC in the State as compared to 27 villages at the national level. In the case of CHCs, the population pressure is relatively higher (1,78,775 persons) than the national average (1,72,375 persons).

Distribution of Healthcare Facilities in West Bengal:

In order to measure the spatial inequality in the distribution of healthcare facilities at sub-centres and other types of hospitals in rural West Bengal, Gini's Coefficient was estimated (Table 2). In the case of the number of rural hospitals and hospital beds, the Gini coefficients are 0.052 and 0.042, respectively. This shows a relatively uniform distribution of beds than hospitals against the rural population in certain pockets. If we compare the rural health facilities with their urban counterparts, the Gini coefficient for urban hospital beds and hospitals is 0.210 and 0.180, respectively, against the respective population size. It shows urban areas are unequal to a large extent than their rural counterpart in terms of hospitals and hospital beds.

The distribution of government hospitals and their beds is relatively uniform. Gini's coefficient for total hospitals against the entire population is the lowest (0.004), showing the most uniform distribution. So, compared to urban areas, the hospitals and number of beds in rural areas are more evenly distributed.

Table 2

Concentration of Different Hospitals and Hospital Beds and Sub-Centres against the Population Size Districts of West Bengal (as on March 2012)

Indicators	Gini's Coefficient
Number of Total Hospitals against the total population	0.004
Number of Total Beds against the total population	0.022
Number of Government Hospital against the total population	0.082
Number of Government Hospital Beds against the total population	0.063
Number of Rural Hospitals (RH, BPHC, PHC) against rural Population	0.042
Number of Beds in Rural Hospitals against the rural population	0.052
Number of Urban Hospitals against the urban population	0.180
Number of Beds in Urban Hospitals against the urban population	0.218
Number of Sub-Centres against total population	0.073

Source: Calculations based on the data collected from 'Health on March 2011-12 report', State Bureau of Health Intelligence, GoWB.

Rural Health Parameters across the Districts in West Bengal: Table 3 shows the district-wise status of key health indicators of rural West Bengal. The total rural population of West Bengal is 912.8 lakh which constitutes almost 8 per cent of the total population of India and stands the fourth highest in respect of the size of the rural population (Census of India 2011). Out of the total rural population (6.2 crore in 2011) in West Bengal, the highest share lives in North 24 Parganas, and the lowest share in Darjeeling. However, regarding the relative share of rural population to the total population of the districts, Uttar Dinajpur is in the fourth position after Bankura, Koch Behar and Purba Medinipur. However, the percentage distribution of rural population is skewed with a CV (Coefficient of variation) value of 25 per cent, and the standard deviation is 17.

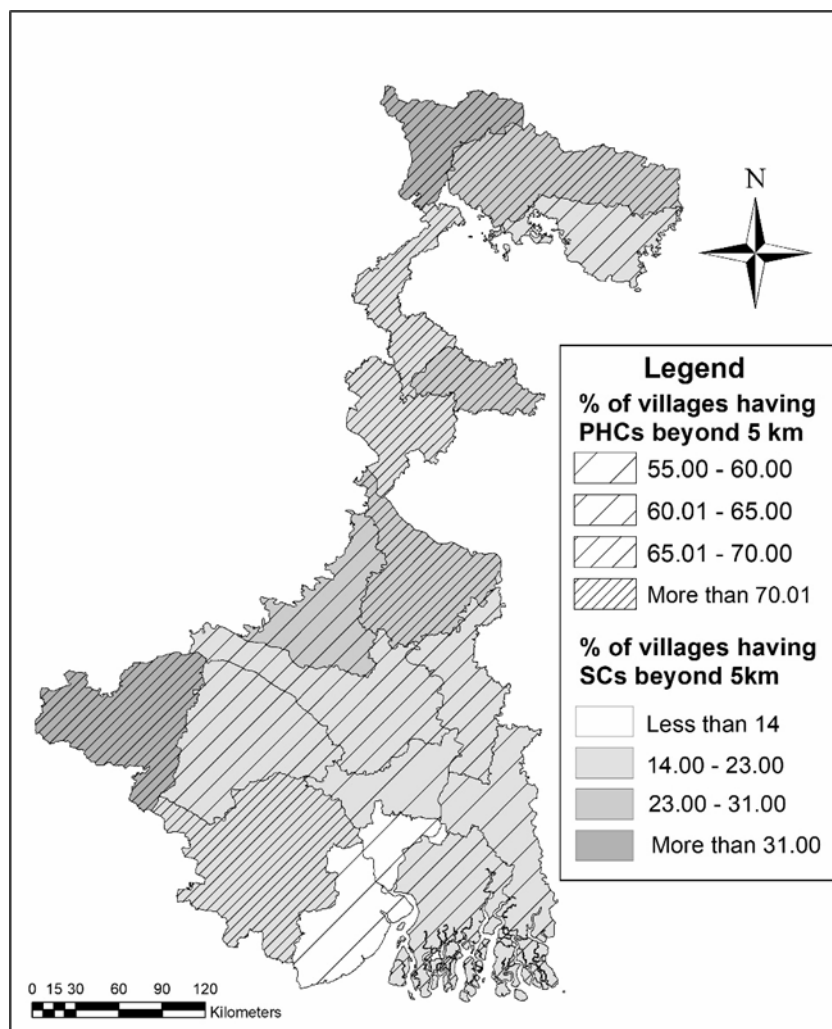
Among the districts, the rural population served per SC is highest in Nadia, followed by Uttar Dinajpur, and lowest in Howrah, which is predominantly urban. There is moderate variation

across districts in terms of population served per SC with a moderate CV of 16 per cent. The average population served per rural health centre is highest in Uttar Dinajpur (with more than 1 lakh). In contrast, the bottom-most place is occupied by Howrah, followed by Darjeeling with less than one-third share of Uttar Dinajpur. Thus, the across-district variation is very high, with a CV of 35 per cent and a standard deviation of 17.4 per cent. The number of persons served per bed in rural hospitals is maximum in Uttar Dinajpur (8063), whereas the average stands out to be 3687 in West Bengal, with a high CV of 38 per cent across the district. Geographical access from villages to health centres is essential for utilisation of healthcare services (Figure 3). In West Bengal, 78 per cent of rural villages get SC facilities within 5 km, but only 30 per cent get PHC facilities within the 5-km range. People from 47 per cent of villages of the hilly district of Darjeeling have to travel beyond 5 km for SC facilities, whereas in most of the plain districts, people get the SC facility within 5 km.

Table 3*District-wise Status of Health Indicators in Rural West Bengal*

Districts	Total Population (in Lakh)	% of Rural Population	Rural Population Served per SC (in '000)	Rural Population Served per RHC (in '000)	Population served per bed in rural areas 2012	% of villages having Sub Health Centre within 5km	% of villages having Primary Health Centre within 5km	Percentage of children (12-23 age months group) who completed all basic vaccinations in rural areas in 2015-16	Percentage of births delivered in a health facility in rural areas in 2015-16	Percentage of 4 ANC visits by pregnant women (15-49 age group) in rural areas in 2015-16	Percentage of births under skilled health personnel in rural areas in 2015-16
Bankura	36.0	91.7	5.8	36.2	2.7	77.2	33.3	95.9	84.5	88.3	86.6
Bardhaman	77.2	60.1	6.1	33.4	2.9	77.3	33.2	88.9	80.8	82.2	84.0
Birbhum	35.0	87.2	6.3	39.6	2.9	76.0	34.6	90.4	85.0	78.5	86.4
Dakshin Dinajpur	16.8	85.9	5.8	55.4	3.6	76.1	24.3	80.8	77.5	68.0	80.0
Darjeeling	18.5	60.6	4.9	32.9	2.2	53.0	24.3	90.1	94.0	68.5	93.0
Haora	48.5	36.6	4.0	31.7	2.3	86.4	44.2	88.6	82.5	92.2	91.5
Hugli	55.2	61.4	5.1	44.0	3.1	84.4	40.1	89.7	90.8	83.9	90.9
Jaalpaiguri	38.7	72.6	5.2	54.1	4.0	69.1	21.7	83.7	81.0	80.6	83.5
Koch Bihar	28.2	89.7	6.2	61.7	5.2	77.6	32.2	76.1	80.7	75.2	87.7
Maldah	39.9	86.4	6.7	68.9	4.6	80.3	24.7	71.5	52.1	51.6	59.3
Murshidabad	71.0	80.3	6.9	59.4	4.6	72.8	27.6	76.8	65.8	71.8	69.0
Nadia	51.7	72.2	8.0	58.3	4.3	78.6	32.9	95.5	91.9	92.3	89.8
North 24 Parganas	100	42.7	5.8	57.8	4.1	83.8	39.1	95.7	82.2	83.7	92.2
Paschim Medinipur	59.1	87.8	6.0	45.9	3.3	78.7	27.4	91.3	76.1	84.4	83.7
Purab Medinipur	51.0	88.4	6.4	58.5	4.7	90.1	43.5	93.9	72.9	78.0	87.4
Puruliya	29.3	87.3	5.3	35.5	2.7	62.9	25.0	85.1	79.0	68.4	86.4
South 24 Parganas	81.6	74.4	5.7	66.7	4.8	83.1	30.1	98.5	47.4	73.3	65.2
Uttar Dinajpur	30.1	88.0	7.7	101.7	8.1	81.8	20.9	69.7	44.9	41.3	56.6
West Bengal	912.8	68.1	6.0	49.5	3.7	78.0	30.9	87.1	72.0	75.8	79.0
Max	100.1	91.7	8.0	101.7	8.1	90.1	44.2	98.5	94.0	92.3	93.0
Mini	16.8	36.6	4.0	31.7	2.2	53.0	20.9	69.7	44.9	41.3	56.6
Std. Dev	22.8	16.7	1.0	17.4	1.4	8.7	7.2	8.7	14.5	13.2	11.4
CV	2.5	24.5	16.0	35.2	37.9	11.2	23.4	9.9	20.2	17.4	14.4

Source: Compiled from i) Health on March 2012-13, SBHI, Govt. of West Bengal; ii) National Family Health Survey (NFHS-4), West Bengal, 2015-16; iii) District Census Handbook, Census of India, 2011, The Registrar General and Census Commissioner of India, New Delhi.

Figure 3*District-wise Geographical Accessibility to SCs*

If we see the other health parameters like the percentage of children (12-23 months) who have received all vaccinations, South 24 Parganas ranks the topmost position, whereas Uttar Dinajpur stands in the lowest place with a moderate CV (10 per cent) across districts. In the case of ANC checkups and institutional delivery of the mothers, Uttar Dinajpur again stands in the lowest position with considerably high CV across districts (Table 3). It has also been observed that the distance to the PHC has a significant correlation with the utilisation of healthcare services in West Bengal (Table 4).

Major Health System Challenges of the Study

Area: Some of the major health system challenges have been identified after a detailed discussion with the local people and health workers of Kaliyaganj and Goalpokhar-I CD Blocks.

Shortage of Healthcare Facilities and Human

Resources: The availability of good health infrastructure with efficient staff is required for better service provisions (Hoope-Bender, Liljestrand, & MacDonagh, 2006). However, shortage of facilities and lack of staff are the most common issues experienced at rural health centres

(Vidler et al., 2016). As per Gol (2012) IPHS guidelines, there is 35 per cent and 77 per cent shortage of medical staff at SCs and PHCs in Uttar Dinajpur, respectively. Besides, lack of health centre buildings, residences for ANMs (both SCs and PHC), functional instruments (weight machine, BP, and height measurement instruments), number of beds (in PHC), toilet and water supply facilities, etc., are most common issues at health centres that affect service delivery. The magnitude of the problem is relatively greater in Goalpokhar-I as compared to Kaliyaganj.

Similarly, the shortage of ANMs, Accredited Social Health Activists (ASHA), doctors, and other paramedical staff is also a serious matter of concern. As a result, excessive population pressure is experienced by the medical staff. ASHA is one of the major components of the National Rural Health Mission (NRHM), who helps the rural community to access healthcare services in India (Sharma et al., 2014). But, the district faces 36 per cent and 8.4 per cent shortage, respectively, of ASHA workers and nursing staff (Table 5). However, the health statistics vary across blocks.

The number of government general duty medical officers is the highest in Kaliyaganj (10) as compared to only 5 in Goalpokhar-I. The shortfall of nursing staff in Golapokhar-I is (30 per cent) the second highest in the district, whereas Kaliyaganj has adequate nursing staff as per sanctioned positions. The shortfall of ASHA workers in Kaliyaganj is higher (33 per cent) than in Goalpokhar-I (12.2 per cent) (CMOH, 2014). No information is available regarding specialist doctors at the block level. As per the field survey in Kaliyaganj, there are two ANMs in both surveyed SCs, but in Goalpokhar-I, there was only one ANM in both the SCs.

Excess Pressure of Population in Healthcare Facilities: According to the 2011 census, the average rural population served by SC and PHC in Uttar Dinajpur is 7689 and 1,32,245, respectively. From the field survey, it is seen that SCs are serving five villages with an average population of 6806 persons in Kaliyaganj against seven villages

and 7074 persons per SCs in Goalpokhar-I. An average population of 18,797 was served per nurse in Kaliyaganj compared to 37,561 in Goalpokhar-I. Population pressure per doctor in Kaliyaganj is 13,400 compared to 65,732 in Golapokhar-I. None of the existing norms about doctor-population and doctor-nurse ratios have been maintained or are highly neglected, which hampers the provision of services at the ground level. During the field observation in Lodhan BPHC, it was observed that two patients were sharing the same bed, which is a common phenomenon, according to their family members.

Distance and Utilisation of Healthcare Facilities:

An increase in travel distance from the location of patients' households to the nearest health facility stands as a barrier to utilising health services (Vidler et al., 2016). Among the two SCs surveyed in Kaliyaganj, Bhuihara SC and Mustafanagar SC are, respectively, 5.5 km and 9 km away from their respective BPHC. In Golapokhar-I region, two SCs are being surveyed under Lodhan BPHC. One is 2.5 km away, and another SC, i.e., Gedrigaon, is located 20 km away from the Lodhan BPHC and almost 10 km away from its nearest Goagaon PHC in Goalpokhar-I. Due to the long distance, respondents are reluctant to go to the health centre.

Connectivity and Medical Transport Facilities:

Uttar Dinajpur has the lowest position in terms of road connectivity in West Bengal (Shamshad & Khan, 2012). Goalpokhar-I is 65 km away from its district town, whereas Kaliyaganj is nearer to its district town (26 km from Raiganj). Within Uttar Dinajpur, Goalpokhar-I block ranks 7th in terms of road (both surfaced and unsurfaced) availability (out of 9 blocks), whereas Kaliyaganj ranks first (District Statistical Handbook, 2012-13). In terms of the number of originating/terminating buses and the distance between the nearest railway station from the block headquarters (in km.), the rank of the two blocks is also similar. In terms of connectivity of sub-centres, in both the study areas, most of the villages are not connected with pucca roads but can be travelled by private vehicle through

accessible kutchra roads throughout the year. In addition, there is no public transport available for travel in Goalpokhar-I. Thus, health workers face difficulties in accessing villages. In the case of ambulance services, Kaliyaganj BPHC has two ambulances and five 'Nischai Jan' ambulances for transportation of patients, all of which are functional. But in the case of Lodhan BPHC, only three functional ambulances were available for patient transportation. Thus, patients in Goalpokhar-I face problems in reaching health centres due to poor transport facilities in this area.

Hospital Buildings & Residential Facilities for Medical Staff: In the case of SCs in both areas, the buildings are government-owned and are in good condition. There is no ANM quarter in either SCs. It has been seen that ANMs in the Kaliyaganj area were deployed from nearby villages (within 5–7 km) to reduce the problems associated with the distance. As a result, ANMs are regularly doing their jobs in this area. But the situation in Goalpokhar-I is the opposite, where the distance from home plays a crucial role and leads to frequent absenteeism among ANMs. ANM quarters are unavailable at any SC, and ANMs must travel a long distance daily. According to an ANM in Goalpokhar-I, no steps have been taken in this regard despite requests to authorities. In the cases of Lodhan and Gedrigaon SCs, the ANM's house is 20 km and 55 km away from their respective SCs. According to ASHA workers in Gedrigaon SC and local villagers, the poor facilities and absenteeism of staff are underlying issues in the service delivery. Thus, this primarily resulted from the low public awareness about the SC and poor physical accessibility of the area. Furthermore, residential facilities for medical officers, pharmacists, and nursing staff are available in Kaliyaganj and Lodhan BPHC, but none of the medical staff is residing in the existing quarters due to the poor quality of buildings and other socio-economic disadvantages.

Cleanliness of the Hospital: Most studies on the quality of healthcare in India show that inferior quality is associated with a high prevalence of

morbidities and mortality (Powell-Jackson et al., 2013). The quality of healthcare services is low in the rural areas of West Bengal, and people are dependent on private practitioners and rural medical practitioners (RMPs) (Mukhopadhyay et al., 2013). In Kaliyaganj, the SC and its premises are fairly clean, while it is the other way around in Goalpokhar-I. In Kaliyaganj BPHC, the hospital premises, patient wards, and OPDs are moderately clean, whereas the situation is quite the opposite in Goalpokhar-I.

Functional Equipment and Medicines: In the SCs of Kaliyaganj, the primary source of drinking water is a hand pump, and regular power supply is also available. Mustafanagar SC does not have a toilet facility, and staff members have to go to nearby ASHA worker's house. Water supply, electricity, a functional toilet, and communication facilities are available at Lodhan SC in Goalpokhar-I, but not at Gedrigaon SC.

Most of the necessary equipment, furniture, and medicines are available at Lodhan SC but not at Gedrigaon SC. In both the BPHCs, there exists a well-equipped and functional labour room and operation theatre. According to the medical officer, the power supply is regular, and generator, telephone and internet facilities are available. Besides, the work for constructing a Sick New-born Care Unit (SNCU) in Goalpokhar-I was progressing.

Both piped and non-piped sources of water were frequently available on the hospital premises. Functional toilet facilities are available in both the BPHCs for the patients, but it was unhygienic due to poor maintenance. All the necessary equipment and furniture were available in both the BPHCs. With regard to medicines, there is a crisis in Goalpokhar-I and patients have to make purchases from medical stores outside.

Narration and Experiences of the Respondents and Healthcare Staff: The qualitative data was acquired through an open-ended questionnaire, personal experiences, observations, and narrations from hospital visitors and healthcare workers.

Several factors, including poor geographical accessibility and distance to health centres, shortage of good doctors and essential medicines, absenteeism among healthcare workers, lack of security and privacy for pregnant mothers, lack of coordination among the various components of healthcare systems at the ground level, and low levels of trust in the public healthcare system, contributed to poor service performance and utilisation. We also discovered that the lack of awareness and literacy prevailed in these areas had a negative impact on the overall utilisation of healthcare services in the study area. According to a few respondents, factors such as physical distance between the residence and the hospitals, poor road connectivity, and the absence of male members in the household restrain them from going to the health facilities. Moreover, the prevailing customs and the perception of the household members regarding the quality of public healthcare services play a significant role in utilising services. Sometimes, respondents consider their home a better place for delivery than hospitals and do not opt for institutional delivery. Due to the lack of privacy at hospitals and lethargic attitude displayed by doctors, pregnant women and lactating mothers are discouraged from going to public hospitals. "The doctor never comes on time, and even if the doctor is there, they have to wait a long time, and the doctor does not check properly and will prescribe the same medicine for every problem. Thus, we generally prefer to go to private doctors," said several respondents. Attitudes, behaviours, and trust are some of the important qualities of healthcare providers (Vidler et al., 2016).

Moreover, the dominating role of local quacks is a critical factor in the low level of healthcare utilisation in rural Uttar Dinajpur. However, the impact of these factors varied geographically as well as socio-economically in the study areas. Some medical and paramedical staff also opined that they were managing the processes as they had to attend to multiple official tasks. This apart, the hospitals have limited staff with respect to the large population and cooperation of the local

people is poor, they add. An ANM at Golapokhar-I said, "In the sub-centre, I am responsible for everything - from official report generation to patient screening - and I have little time to conduct a door-to-door awareness campaign. More staff are required. No proper facilities, even a urinal, are available. In such context, how would I cope in an emergency?"

Conclusion

Spatial disparities in public healthcare facilities are always a matter of concern for improving the health status of the poorer sections of any society. Inadequate access and skewed distribution of healthcare resources directly affect the health status of the poor. Low coverage and utilisation rates of healthcare services result from poor quality healthcare services, such as the absence of health workers and their skewed distribution, lack of equipment, poor governance, and other supply-side constraints (R. Lozano et al., 2011). The current study explored the inequality in access to basic healthcare services. Despite various initiatives, the State's health achievements have been limited due to a lack of health infrastructure and human resources. The existing networks of preventive and curative care (i.e., SCs, PHCs, and CHCs) cannot provide adequate services to the existing population pressure in most districts. Districts with a high share of the rural population are also characterised by a high SC-to-population ratio. Limited human resources, especially doctors, nurses and specialists, is a critical issue for healthcare services. A single ANM or doctor serves in most of the SCs and PHCs. In the absence of other health workers, ANM in the SCs or the medical officer in the PHCs must manage various tasks single-handedly. In the case of CHCs, shortage of specialist doctors and other paramedical staff like pharmacists, male health assistants and radiologists has made the situation far more critical. On the other hand, health centres are primarily concentrated in large urban centres. The distribution of hospitals and hospital beds per the population's requirement is skewed more in urban rather than rural areas. The population

pressure on hospital beds is higher in northern districts than in the southern districts of West Bengal. In the case of spatial access to hospitals from the villages, SCs do not exist within the specified range of three kilometres. Moreover, the situation is miserable in a few hilly, tribal and minority-dominated districts like Darjeeling, Purulia, Birbhum, Jalpaiguri, and Murshidabad. To avail the healthcare facilities from PHCs and CHCs, villagers in most districts have to travel beyond 5 km and 10 km, respectively. So, the spatial inequalities in access to health centres must be addressed to improve the health status of the people in rural areas of West Bengal.

The situation in Kaliyaganj block concerning infrastructure and human resources at both SC and PHC levels is relatively better than that of Goalpokhar-I block due to high population pressure in the latter; insufficiency of supply-side factors has created huge stress on the existing health system. The hygiene level of the healthcare centres is almost similar in both areas. Residential proximity of doctors and other hospital staff with respect to SCs and PHCs is highly interconnected, and it affects the regularity and quality of health services. People preferred visiting private facilities for treatment regardless of location due to their displeasure over public facilities, such as poor quality of services, extended waiting times and long

distances to PHC. Apart from these, due to low levels of socio-economic development (i.e., low income and literacy) and lack of awareness, the people of Goalpokhar-I have minimal interaction with health staff, and they also believe in traditional medical practitioners or the Gunin/Ojhas/local quacks. So, lack of access due to communication gaps is also visible in rural areas of Goalpokhar-I block. Minimal levels of regional development, lack of transport facilities, low literacy and informal occupation have forced large sections of the minorities to adjust to health shortages in Goalpokhar-I block, while proximity to urban areas and relatively high levels of socio-economic development put the people of Kaliyaganj in an advantageous situation. Thus, in order to accomplish better health status, the State policies must be oriented towards the holistic development of the region. Initiatives for health system development are required in large numbers to increase access to healthcare facilities in the backward minority-dominated rural areas.

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Author's Contribution

Ranjan Karmakar: Conceptualisation, design of the study, collection of primary data from the field and preparation of the initial manuscript.

Bailochan Behera: Critically revised the initial manuscript and given inputs.

Both the authors analysed the datasets, prepared graphs and figures, and interpreted the results and discussion. Both had read, revised and approved the final manuscript.

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