

## STATUS OF URBAN HEALTH INFRASTRUCTURE TO COMBAT COVID-19 IN BIRBHUM DISTRICT, WEST BENGAL

**Mahuya Sen**

Associate Professor (Geography)

Birbhum Mahavidyalaya, Suri (Affiliated under Burdwan University), India

Email: mahuyasen74@gmail.com

### How to cite this paper:

Sen Mahuya (2023) Status of urban health infrastructure to combat COVID-19 in Birbhum District, West Bengal, Journal of Global Resources, Vol. 09 (02)

### DOI:

10.46587/JGR.2023.v09i02.014

**Received:** 21 April 2023

**Reviewed:** 15 May 2023

**Final Accepted:** 27 June 2023

  
**OPEN ACCESS**

Freely available Online

[www.isdesr.org](http://www.isdesr.org)

**Abstract:** *The outbreak of Covid-19 was declared a Public Health Emergency of International Concern on 31<sup>st</sup> January, 2020. Every country can take at national, sub regional and local levels to reorganize essential health services in the pandemic context and maintain a safe access to every citizen. To deal with this catastrophic Corona Virus India is making preparedness with its high urban population density, deficiency in hygiene and sanitation facilities and most crucially insufficient treatment capacity. The first 2000 cases were reported in 56 days. The next 2000 in 15 days and the next 2000 cases in a week. According to the data released by the state health department, West Bengal took just 5 days from June 3<sup>rd</sup> to June 7<sup>th</sup> to register the next 2000 cases. Till Tuesday (9<sup>th</sup> June) total cases in the state stood at 8985. With increased number of testing and the entry of migrant labourers, there was a sudden spike in the number of cases. The returning migrant workers from the highly infected zones after an unplanned lockdown delivers a major catastrophe at our doorstep. The objective of the study is to focus on the arrangement of health services for this disaster in Birbhum District, West Bengal. According to the direction of the Bengal health department, separate hospitals for Covid-19 patients are to be set up in each district in order to arrange a local set-up before the contamination expands into the community transmission stage.*

**Key words:** Covid 19, Catastrophic, Contamination, Community Transmission, Migrant

## **Introduction**

Several significant health challenges required united efforts and multi-sectoral approach to maintain hasty pace of urbanization in India. The National Urban Health Mission (NUHM) launched in 2013 provides us a unique opportunity and tangible mechanism to improve urban health. To strengthen various initiatives of this scheme medical colleges were set up – most of them being in urban areas – can expediently afford important academic, research, and referral support to develop urban health. The NHP-2017 has given special emphasis in this subject more expansively. The most recently discovered Corona virus causes disease COVID-19 which is infectious and may cause illness in animals or humans. In humans, several corona viruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and severe acute respiratory syndrome (SARS). Many countries around the world have seen cases of COVID-19 and several have seen outbreaks. The first case of COVID-19 in India, which originated from China, was reported on 30 January 2020. The outbreak of Covid-19 was declared a Public Health Emergency of International Concern on 31<sup>st</sup> January, 2020. This pandemic situation in India is part of the worldwide pandemic of corona virus disease 2019 caused by severe acute respiratory syndrome corona virus 2. Every country can take at national, sub regional and local levels to reorganize essential health services in the pandemic context and maintain a safe access to every citizen. To deal with this catastrophic Corona Virus India is making preparedness with its high urban population density, deficiency in hygiene and sanitation facilities and most crucially insufficient treatment capacity. India's performance to the virulent disease as 'Comprehensive and robust,' terming the lockdown restrictions as forceful but vital for containing the spread and building necessary healthcare infrastructure were praised by the United Nations (UN) and the World Health Organization (WHO). The government's rapid and stringent actions, emergency policy making, emergency investment in healthcare, fiscal stimulus, investment in vaccine and drug R&D are noted by the Oxford COVID-19 Government Response Tracker (OXCGRT). The first 2000 cases were reported in 56 days. The next 2000 in 15 days and the next 2000 cases in a week. According to the data released by the state health department, West Bengal took just 5 days from June 3<sup>rd</sup> to June 7<sup>th</sup> to register the next 2000 cases. Till Tuesday (9th June) total cases in the state stood at 8985. With increased number of testing and the entry of migrant labourers, there was a sudden spike in the number of cases. The returning migrant workers from the highly infected zones after an unplanned lockdown delivers a major catastrophe at our doorstep. As of 20 June 2020, the Ministry of Health and Family Welfare India currently has the largest number of confirmed cases in Asia and has the fourth highest number of confirmed cases in the world. India's case fatality rate is relatively lower at 2.80 percent, against the global 6.13 percent, as of 03 June, 202

## **Objective**

The objectives of the study are:

- To focus on the growth of urban population in the district.
- To highlight the existing urban health service of the study area.
- To find out arrangement of urban health infrastructure for this COVID-19 disaster in Birbhum District, West Bengal.

## **Methodology**

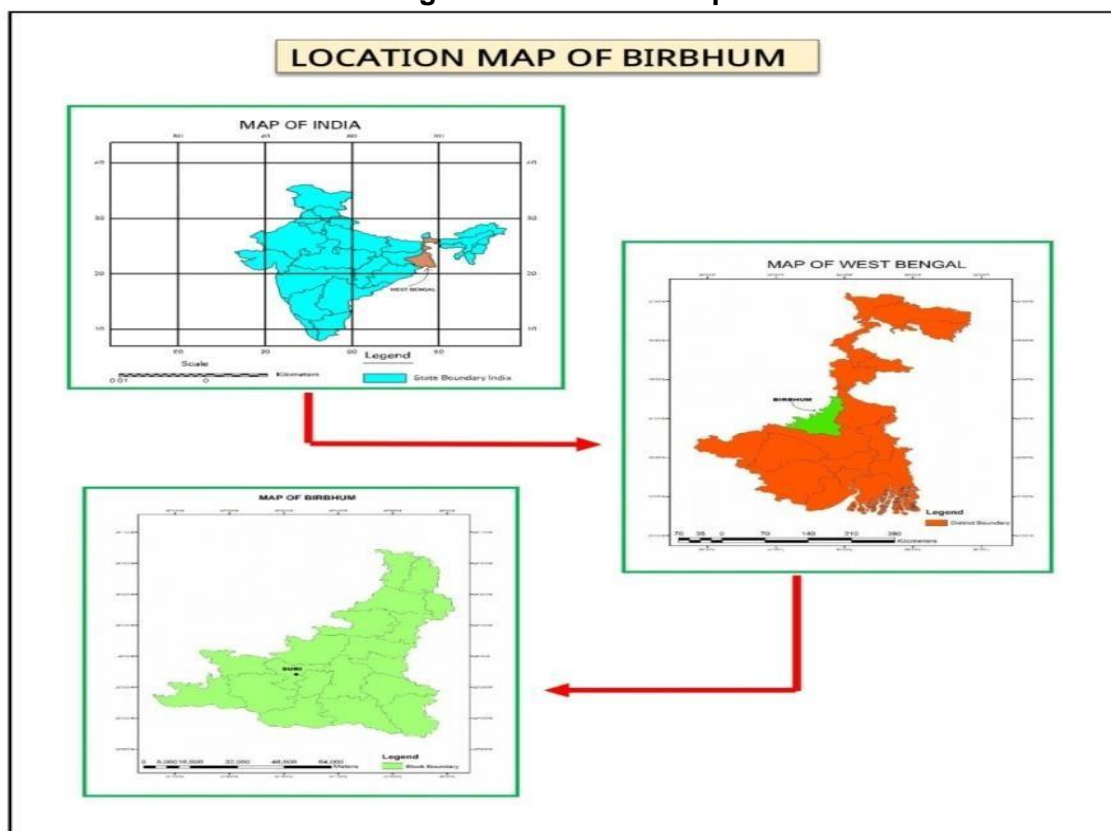
The study is related to recent phenomena so the literature review is done from the different newspapers. It is also quite difficult to collect primary data through traditional method so keeping in mind the order of Govt. "Stay at home and stay safe" pertinent data are collected from the office website of the state health department, West Bengal (through internet)

and interviewing local health staff, nursing staff, media person, through RPA (rapid phone appraisal) method ( Lahiri Dutta, Kuntala, June, 2020). Based on collected data relevant maps and diagrams are prepared and analysis is made.

### Location of the Study Area

The study area, Birbhum District, is in the western part of the state of West Bengal being surrounded by the districts of Bardhaman on South and South West, Murshidabad in the East and North East respectively along with the State of Jharkhand in North and North West. The location extension of the district is from 23°33'30"N-23°33'45"N latitudes and 87°47'00"E-87°49'00"E longitudes. The district comprises of three sub- divisions namely Suri, Rampurhat and Bolpur. The study area have 19 blocks showing in the map (Figure 01). Rampurhat subdivision contains eight blocks, Suri sub-division encompasses seven blocks and Bolpur subdivision has 4 blocks . Suri is the sadar town of the district.

Figure 01: Location Map



### Results and Findings

The government had drawn up plans to deal with a worsening of the pandemic in the country. This included seven ministries working together to set up additional quarantine and treatment facilities across the country. The Ministry of Textiles was to ensure the availability of protective and medical materials. The Department of Pharmaceuticals was to ensure the availability of essential medicines. The Ministry of Consumer Affairs, Food and Public Distribution was asked to ensure availability of essentials. To take social distancing measures as a preventive strategy, Govt. announced compulsory screening, He also announced a ₹150 billion (US\$2.1 billion) aid for the healthcare sector. This money would be used for developing testing facilities, PPEs, ICUs, and Ventilators and for training medical workers. People were asked to avoid routine checkups and elective surgeries to reduce the burden on the health system, follow the guidelines set by Ministry of AYUSH to improve immunity and download the Aarogya Setu app to track one's health.

### **Demographics and Existing Health Care Facility**

The percentage of urban population has increased from 8.6 (258420 persons) in 2001 to 12.8 (4,49,448 persons) in 2011 Census. Urban decadal growth rate had a considerable jump from during 1991-2001 to during 2001- 2011 at 73.9 per cent. As per 2011 Census there are six Municipalities and fourteen Census Towns in Birbhum district. According to population size wise class Bolpur, Suri and Rampurhat Municipality fall in Class-II category and other three Municipalities viz. Sainthia, Nalhati and Dubrajpur Municipality fall in Class-III category. Out of 14 Census Towns of the district 5 Census Towns belong to Class-IV, 8 Census Towns belong to Class-V and one Census Town viz. Kalipur (CT) belongs to Class-VI. In urban areas, it is two tier systems with Urban Health Centre (UHC)/Urban Family Welfare Centre (UFWC) for every 1,00,000-population followed by general hospital. The three-tier health infrastructure system, viz. Community Health Centre, Primary Health Centre and Sub Centre in District, Block and Village level respectively. Urban health care infrastructure of the district consists of 01 district (Suri sadar) hospital located at the district headquarter, 2 Sub-divisional hospitals situated in Rampurhat and Bolpur subdivisions. The total urban population of the district is 4,49,448 in 2011. 520 beds are available in the district hospital and 411 beds are in the two sub-divisional hospitals. Besides, 396 beds are available in the private sector nursing homes, 382 beds in other hospitals, which means a total of 1709 hospital beds distributed among 47 secondary and tertiary level healthcare facilities in urban Birbhum. So, 263 persons are served per bed in urban area. The NUHM division of the Ministry of Health and Family Welfare has engaged medical colleges in supporting urban healthcare services. In this study area the medical college situated in Rampurhat is the only one. Number of existing doctors in the district are 195 whereas 135 posts are vacant. So, the present doctors population ratio is 1: 17961. It is frighteningly below the recommendation by WHO. India's doctor-to-population ratio -1: 1445. It should ideally be 1: 1000. Number of existing staff nurse are 591 whereas 127 posts are fallen vacant. So, the nurse population ratio is 1: 5926.

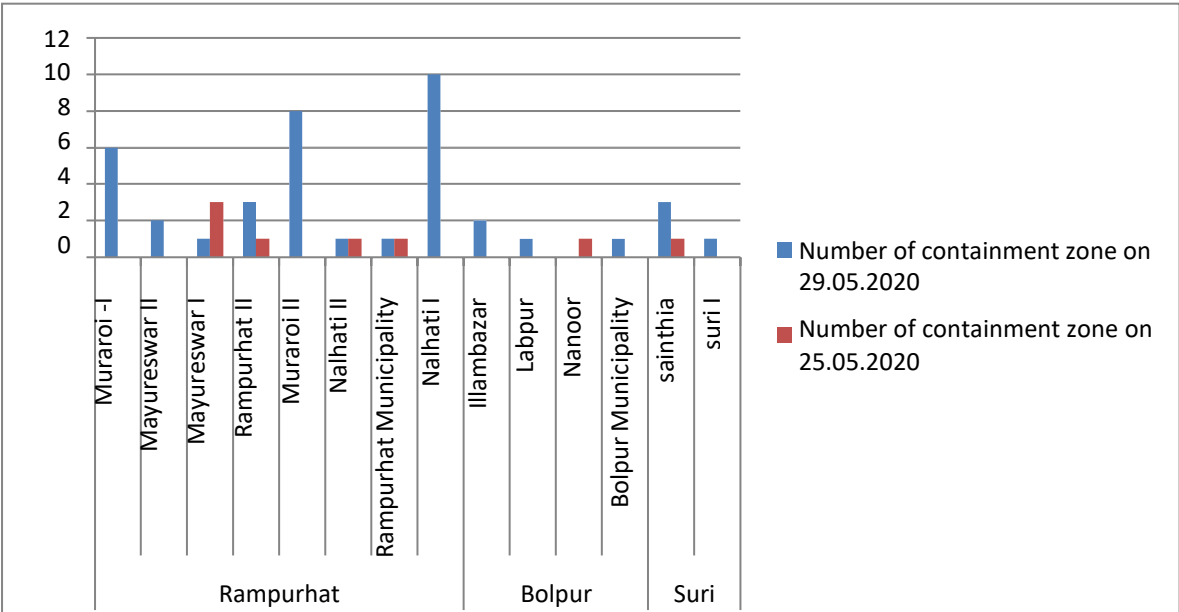
### **Special Health Care Facility of COVID**

First step as preventive measures against this deadly virus, thermal screening of each patient coming to hospital has started from the first day of emergency. According to the direction of the Bengal health department, separate hospitals for Covid-19 patients are to be set up in each district in order to arrange a local set-up before the contamination expands into the community transmission stage. According to guidelines, each such hospital would be equipped with at least 20-30 beds with ventilators and dialysis units. The hospital should have a total strength of at least 100 beds, which could be augmented in a crisis. These hospitals would also have a pathological laboratory, which could be turned into a testing unit for Covid-19. Doctors and other medical personnel attending to Covid-19 patients in Calcutta have given training to their counterparts at different hospitals across Birbhum district through video conferencing. They received training on how to treat patients from admission to diagnosis, and also proper procedures of sanitisation of wards and the use of personal protective equipment. The study finds that in Birbhum District at the first stage only one private hospital (Glocal – Ultra Care) is dedicated to COVID. This hospital accommodated with 1 super, 2 doctors, 1 specialist, 2 MO (Medical officer, 3 Nurse and other skilled, unskilled personnel. They are doing shifting duty. A part of Rampurhat Medical college and Hospital, Bolpur sub-divisional Hospital, Suri Sadar hospital are arranged as isolation ward for the suspected case who have respiratory problems. Three sub-divisional hospitals are also prepared a fever clinic with 2 doctors and 4 nurses. Fever clinics are also set up in a battle mode. In Bolpur subdivision Doctors are discharged their duty for 14 days and another 14 days they are stayed in a hotel (Tourist lodge for doctors, Nursing staff are stayed at Ashirbad lodge after completing their duty). Critical patients are transferred to nearest Covid hospital Sanoka at Durgapur. But no testing laboratory is set up.

A part of Rampurhat medical college and a Private Nursing home is prepared for Covid hospital to cater the urgent needs. Another nursing home in Bolpur is to be taken for this purpose. These hospitals have 40 beds in each which are grossly inadequate for the crisis. Recently in district town Suri Pathological laboratory with the facility of RT-PCR has started with a capacity of 200 patients per day. To combat the disaster more hospitals should be arranged in the coming days. The districts have set up quarantine centers in various empty government buildings. The districts have been asked to increase number of quarantine centers and to set up at least a large quarantine center in every block. Swab Test is operating in four blocks of Bolpur sub division namely Illumbazar, Nanoor, Bolpur, Labpur and five blocks in Suri sub-division namely Sainthia, Suri 1 & 2, Dubrajpur, Khoyrasole.

To maintain the proper health infrastructure to fight against COVID19 recruitment process is started in an emergency basis. The different districts of West Bengal such as Kolkata, Cooch Bihar, Maldah, Purulia, Diamond Harbor, Bankura, Paschim Bardhoman, Birbhum were given urgent notice for different contractual posts under NHM at CMOH , post of Pharmacist, Lab Technician, Composite Recruitment Notice for different post on contractual basis, Notice for House staff ship, Molecular Biologist, for GDMO for M. R. Bangur COVID- 19 Hospital, post of DPC-RNTCP, for the post of COVID-19 Volunteers of CMOH, post of DEO for COVID-19, composite engagement order post of District Epidemiologist under NHM on temporary basis 25/05/2020 to 28/06/2020, Composite engagement order post of District Microbiologist under NHM on temporary basis 28/05/2020 and 28/06/2020, Composite engagement order post of District Data Manager under NHM on temporary basis 28/05/2020 to 28/06/2020, Engagement order post of Legal Assistant in integrated Law cell under West Bengal state Health & Family Welfare samiti 28/05/2020 & 1/06/2020, Data Entry operators at COVID 19 Lab for Office On a war footing preparedness particularly the Birbhum District has displayed recruitment Notice for different contractual post under NTEP for CMOH, Rampurhat HD on 04/06/2020 to 12/06/2020, for the different post on contractual basis for RTPCR Laboratory for COVID 19 test at Suri Sadar Hospital, Beerbohm on 24/05/2020 to 30/05/2020, Recruitment for Birbhum (Covid19) on 24/05/2020 to 30/05/2020, Engagement Order of Staff Nurse (SC Category) under NUHM at Rampurhat Health District on 30/04/2020 to 07/05/2020. The state government has set up special quarantine facilities for migrant workers returning in Shramik Special trains.

**Figure 02: Number of Containment Zones in the Birbhum District**





From figure no. 02 it is observed that on 29.05.2020 highest number of containment zones are in Nalhati I, then Muraroi II and Muraroi I having the 2<sup>nd</sup> and 3<sup>rd</sup> position respectively regarding number of containment zones in the district, as they have received the maximum number of migrant labourers from outside state. It is observed that Rampurhat subdivision is showing the highest density containment area in the Birbhum district. Highest number of containment area on 29<sup>th</sup> May, 2020 are found in Muraroi II, Muraroi I, Nalhati I, Nalhati II Blocks respectively. This may be due to the peripheral location of these blocks and the highest density of population and large number of migrant labourers have returned in large number to their home towns. Whereas Bolpur subdivision has medium density containment zone with highest number of containment area in Nanoor Block on 9<sup>th</sup> June, 2020. Rajnagar, Dubrajpur and Suri II block have no containment area till now. These blocks are fallen in low density containment area of Suri sub-Division.



At present, Birbhum has one Covid-19 hospital in Bolpur, which has 40 beds and admitted 181 patients so far. The Officials said a private nursing home in Rampurhat had earlier been short-listed to turn it into a Covid-19 hospital but the plan was dropped because it lacked adequate infrastructure. The district's current number of beds for Covid-19 patients is inadequate because of the rising cases. The health department has selected the defunct TB sanatorium, Niramoy, at Dubrajpur as the second Covid-19 hospital and started renovating it and will be turned into a dedicated Covid-19 hospital shortly in Birbhum. Patients with mild symptoms are to be admitted here. The district administration makes plan to start another Covid-19 hospital inside a private hotel in Tarapith.

### **Conclusion**

India as well as our district are rapidly urbanizing. Before 2002 needs of healthcare of the urban population have not received adequate attention. The National Health Policy (NHP) 2002 acknowledged the need to focus on urban population. The government has launched National Urban Health Mission (NUHM) in 2013 to create comprehensive healthcare infrastructure in a planned manner. But it has been very slow to take off and expand impetus. The NHP-2017 emphasizes the need extensively and move forward. Recently COVID-19 is affecting the whole world. To deal with the pandemic effectively lockdown is merely for buying time by which the health infrastructure can be readied. Health Infrastructure, is observed to be the major determinant of Health Status of the people. Urban Health infrastructure of the district is not up to the mark and as an effect health status of the people is affected. The district has minimal resources about doctors, medical staff and other health infrastructure. The district is facing

severe shortage of respiratory devices & ventilators. It would be tough to operate with these smaller numbers. Due to high population pressure in West Bengal the infrastructural facility is found to be insufficient dealing with double or triple number of population than they are capable to handle. This reduces their efficiency and thereby causes poor health service. Huge number of patients are being referred to the Medical College as well as District Hospitals due to lack of infrastructural support in the rural health centers and this is making the hospitals crowded, unhealthy and less efficient. The medical colleges necessitate working closely with the state governments in providing technical support to perk up healthcare services in urban areas. The central Government spends just about 1.09 percent of GDP on public health. National health policy is to increase into 2.5 percent of GDP by 2025. Among nine states of the country West Bengal is one of the lowest spenders on healthcare. Some reforms in this sector need to focus on key areas such as district hospitals and primary health centers (PHCs) need to be strengthened, medical seats to be augmented. District hospitals should be equipped to handle epidemics. Government needs to spend in vaccine manufacturing. Private sector resources require to assist public sector efforts is especially in times of a crisis like COVID-19. The country as well as district must tie in private sector to create capacity. The study area needs more diagnostic tests, hospital beds, ICUs, ventilators, and so on.

## References

1. Newspaper: The Telegraph, The New Indian Express (Different dates)
2. Website of the State health Dept. [www.birbhum.gov.in](http://www.birbhum.gov.in)>cmoh
3. <https://www.shodhganga.inflibnet.ac.in> Chapter-iv Medical Institution
4. District Statistical Handbook (2015) Govt. of W.B., Bureau of applied economics & statistics, Dept. Of planning, statistics & programme monitoring.
5. Prasad, Neeta February (2010) Chief editor of Kurukshetra, A Journal of Rural Development, Vol.58, No.4.
6. Misra, R.P. (2007) Geography of health , concept publishing company, New Delhi-110059.
7. Roy, Debasish (2013) status of human development in the district of Birbhum at block level in Sociology and Anthropology 1(2): 104-110, 2013, Horizon Research Publishing. Pp-104-106 ,<http://www.hrpub.org> DOI: 10.13189/sa.2013.010209
8. Status Of Rural Health Care and The Hidden Disparity: A Study of Birbhum District, West Bengal, [www.iosrjournals.org](http://www.iosrjournals.org) 14
9. [Wbplan.gov.in](http://wbplan.gov.in)> DHDR\_Birbhum, Chapter - 3 Health and health care in Human Development Report Birbhum page -39 -41 <https://core.ac.uk>, Health for Development: A District Level Study in West Bengal Hati, Koushik Kumar and Majumder, Rajarshi Centre for Studies in Social Sciences, Calcutta. September 2011 Online <https://mpra.ub.unimuenchen.de/45849/> MPRA Paper No. 45849, posted 05 Apr 2013 12:04 UTC
10. <https://www.moneycontrol.com>, Economic survey (2020) expenditure on health care continue to be flat- [moneycontrol.com](http://moneycontrol.com)