



## A Comparative Study on the Availability of Public Health Care Infrastructure in Garo Hills Region, Meghalaya

**Yilanthung M. Sangma**, Ph.D Research Scholar, Department of Economics, Annamalai University, Annamalai Nagar, Tamil Nadu, India, [yilanthungsangma@gmail.com](mailto:yilanthungsangma@gmail.com)

**Dr. T.R. Jeyaraaj**, Professor and Head, Department of Economics, Annamalai University, Annamalai Nagar, Tamil Nadu, India, Email: [trjeyaraaj@yahoo.com](mailto:trjeyaraaj@yahoo.com)

**Abstract.** The main objective of the study is to understand the availability of public health care facilities in the Garo Hills region of Meghalaya state. It also aims to look at the disparities of health care facilities among the districts in the region. To achieve these objectives, data related to public health care facilities were collected from the Department of Health and Family Welfare, Government of Meghalaya. In contrast, data related to population was collected from the 2011 Census data of India. The collected data were analysed using the percentages method and the healthcare infrastructure ratio available to the total population. The study's main findings are that districts like North Garo Hills still do not have a single district hospital for the people. Also, there is a wide disparity among the districts when the ratio of public health care facilities' availability to the population is considered.

**Keywords:** Public Health Centre, Public Health Care Facility, Garo Hills Region, Meghalaya

### I. INTRODUCTION:

Health is a fundamental right and ranked as one of the most important in one's life domain. The widely accepted definition of health given by the World Health Organization (WHO) is that health is a state of complete, physical, mental, and social well-being and not merely an absence of disease or infirmity (WHO, 1958). Health is considered to be man's greatest possession and source of happiness. Health plays a significant role in the socio-economic development of any country. Good health increases the productivity of the people. Hence, investment in health is an investment in a human resource, bringing national development. There is a saying Health is Wealth. But the health of every society depends upon the availability and accessibility of health care facilities. Health infrastructure is an essential mechanism for the health care delivery provisions and mechanisms within the country. The availability and utilization of health care facilities is an essential factor for socio-economic transformation. Balanced development of healthcare facilities in rural and urban areas is needed to provide equitable health care services for people's well-being. Preliminary Assessment of the Social Enterprise Sector in the North Eastern Region in India (Zusammenarbeit, 2012) has identified natural disaster as one of the major challenges of healthcare in the North East region. The area is characterized by hilly areas, frequent floods, landslides and huge tribal communities living in isolated villages. Garo Hills is one of the regions in the North Eastern States of Meghalaya, India, consisting of 5 districts: West Garo Hills, North Garo Hills, East Garo Hills, South Garo Hills, and South West Garo Hills. Nearly 93 percent of the region's population belongs to the rural areas, with the most tribal populations occupying the region's entire five districts. Garo Hills is a hilly region, with many inaccessible areas with little or no access to good quality health care services. There is always a hurdle in this region for any development process because of its poor geographical conditions such as roads, living areas, and other socio-economic factors. Given this brief background, the present study attempts to answer the following objectives:

### OBJECTIVES:

The objectives of the present study are to understand the availability of public health care centres in the Garo Hills region of the State Meghalaya and to identify the disparities in the availability of health care facilities among the districts in the region with regard to the number of Hospitals, Community Health Centres (CHCs), Primary Health Centres (PHCs), Sub-Centers, and Dispensaries.

## II. METHODS AND DATA COLLECTION:

The present study is solely based on secondary data. The data related to the population is collected from the Population Census 2011 published by Registrar General, Government of India and data related to public health care centres are collected from the Department of Health and Family Welfare, Government of Meghalaya. To analyse the disparities in the availability of health care facilities among the districts, collected data were analyzed using percentages and the ratio for the availability of health care facilities to the population.

## III. DATA ANALYSIS AND INTERPRETATION:

### Population:

To understand the ratio of public health care centres to the population, it is vital to understand the study area's population. Hence, Table 1 shows the district-wise distribution of the population in the region.

**Table 1: District-wise Number of Population**

District	Population
West Garo Hills	470796 (45)
East Garo Hills	145798 (14)
South Garo Hills	142574 (14)
North Garo Hills	118325 (11)
South West Garo Hills	170794 (16)
Garo Hills Region	1048287(100)

Note: Figures in parentheses indicate percentages

Source: Census of India, 2011

It is found from table 1 that West Garo Hills District has the highest population among the five districts with 45%, which is nearly half of the total population of the region, followed by South West Garo Hills District with 16%, both East Garo Hills and South Garo Hills Districts with 14% and North Garo Hills District with 11% respectively.

### District Hospitals:

"District Hospital is a hospital at the secondary referral level responsible for a district of a defined geographical area containing a defined population. Its objective is to provide comprehensive secondary health care services to the people in the district at an acceptable level of quality and being responsive and sensitive to the needs of people and referring centres. Every district is expected to have a district hospital"(India, 2012). The district-wise distribution of hospitals is shown in table 2.

**Table 2: District-wise Number of Hospitals**

District	Hospital	Hospital Population Ratio
West Garo Hills	2 (40)	1:235398
East Garo Hills	1 (20)	1:145798
South Garo Hills	1 (20)	1:142574
North Garo Hills	-	-
South West Garo Hills	1 (20)	1:170794
Garo Hills Region	5 (100)	1:209657

Note: Figures in the parentheses indicate percentages.

Source: Department of Health & Family Welfare, Government of Meghalaya.

Table 2 shows that out of 5 total hospitals in the region, nearly half (40%) of the hospitals are within the West Garo Hills District, followed by the other three districts by a number of single hospital each. Surprisingly, North Garo Hills District does not have a single hospital as per as the data is concerned. However, regarding the hospital population ratio, what is interesting is that a completely different result emerged while examining the hospital's distributional pattern to the population size in the five districts of the region. West Garo Hills District, which stood first in terms of hospital availability, appears to be the worst

served when the hospital population ratio is considered. In West Garo Hills District, one hospital is available for every 235398 population. In other districts except for North Garo Hills Districts, at least one hospital is available for every 145798, 142574, and 118325 persons, respectively.

#### **Community Health Centres (CHCs):**

A CHC serves as a referral centre for 4 PHCs. It is ideally staffed by four Specialists such as Surgeon, Physician, Gynaecologist, and Pediatrician, besides Medical Officers and Dental surgeons. There are 11 CHCs functioning in the region. The district-wise distribution of CHCs is shown in the following:

**Table 3: District-wise Number of CHCs**

District	CHCs	CHCs Population Ratio
West Garo Hills	5 (46)	1:94159
East Garo Hills	1 (09)	1:145798
South Garo Hills	1 (09)	1:142574
North Garo Hills	3 (27)	1:39442
South West Garo Hills	1 (09)	1:170794
Garo Hills Region	11 (100)	1:116476

Note: Figures in the parentheses indicate percentages.

Source: *Department of Health and Family Welfare, Government of Meghalaya.*

From table 3, it has been inferred that, out of 11 CHCs in the region, nearly half (46%) of the CHCs are within West Garo Hills District, followed by North Garo hills (27%), while other districts have only one CHCs each, respectively. In terms of CHCs population ratio, North Garo Hills served best with the availability of one CHC for every 39442 population. Table 4 also shows that South West Garo Hills District appears to be worst served with the availability of one CHC for every 170794 way below the entire Garo Hills region when CHCs population ratio is taken into consideration.

#### **Primary Health Centres (PHCs):**

A PHC is the first contact point between the village community and the Medical Officer. It acts as a referral unit for 6 Sub-Centres. There are 40 functioning PHCs in the Garo Hills Region. The district-wise distribution of PHCs are as follows:

**Table 4: District-wise Number of PHCs**

District	PHCs	PHCs Population Ratio
West Garo Hills	9 (22)	1:52311
East Garo Hills	7 (18)	1:20828
South Garo Hills	6 (16)	1:23762
North Garo Hills	9 (22)	1:10757
South West Garo Hills	9 (22)	1:18977
Garo Hills Region	40 (100)	1:30832

Note: Figures in the parentheses indicate percentages.

Source: *Department of Health and Family Welfare, Government of Meghalaya.*

The above table 4 depicts that the entire region of the Garo Hills has 40 PHCs, of which three districts, namely, West Garo Hills, North Garo Hills, and South West Garo Hills, each has 9 (22%) PHCs, followed by East Garo Hills 7 (18%) and South Garo Hills district 6 (16%), respectively. Table 5 also depicts that North Garo Hills District appears to be the best served with the availability of one PHCs for every 10757 population when PHCs' population ratio is taken into consideration, followed by South West Garo Hills with 20828, East Garo Hills with 20828, South Garo Hills with 23762, and West Garo Hills District with 52311, respectively.

#### **Sub Centres:**

A Sub Center is the most peripheral contact point between the primary health centre and the community health centre. One ANM and a chowkidar staffs it. There are 198 functioning sub centres in the region. The district-wise distribution of sub centres is as follows:

**Table 5: District-wise Number of Sub Centres**

District	Sub Centre	Sub Centre Population Ratio
West Garo Hills	65 (33)	1:7243
East Garo Hills	31 (15)	1:4703
South Garo Hills	26 (13)	1:5484
North Garo Hills	49 (25)	1:2415
South West Garo Hills	27 (14)	1:6326
Garo Hills Region	198 (100)	1:5294

Note: Figures in the parentheses indicate percentages.

Source: *Department of Health and Family Welfare, Government of Meghalaya.*

The above table 5 reveals that the highest number with 65 Sub Centres falls under West Garo Hills District, followed by North Garo Hills District with 49, East Garo Hills District with 31, South West Garo Hills District with 27, and South Garo Hills District with 26 Sub Centres. Table 5 also reveals that the entire region of Garo Hills has the availability of one Sub-Centre for every 5294 population. North Garo Hills District appears to be the best served with the availability of one Sub Centre for every 2415 population followed by East Garo Hills District with 4703, South Garo Hills District with 5484, South West Garo Hills District with 6326 and West Garo Hills with 7243 when Sub-Centre population ratio is taken into consideration.

#### **Dispensaries:**

The Garo Hills region has only five dispensaries. The district-wise distribution of dispensaries are given in the following table 6:

**Table 6: District-wise Number of Dispensaries**

District	Dispensaries	Dispensaries Population Ratio
West Garo Hills	3 (60)	1:156932
East Garo Hills	1 (20)	1: 145798
South Garo Hills	1 (20)	1: 142574
North Garo Hills	-	-
South West Garo Hills	-	-
Garo Hills Region	5 (100)	1:209657

Note: Figures in the parentheses indicate percentages.

Source: *Department of Health and Family Welfare, Government of Meghalaya.*

Table 6 shows that West Garo Hills District has the highest number of 3 dispensaries, followed by East Garo Hills and South Garo Hills District with one dispensary each, respectively. Both North Garo Hills and South West Garo Hills do not have single dispensary as per the data. Regarding the dispensaries population ratio, Garo Hills Region has one dispensary for every 209657. South Garo Hills district appears to be the best served availability of one dispensary for every 142574 population, followed by East Garo Hills district with one dispensary for 145798. Even though the West Garo Hills district has a higher number of dispensaries among the other districts, it appears to be the worst served when the dispensaries' population is considered.

#### **IV. FINDINGS:**

- Among the five districts in the region, West Garo Hills District has the highest population, with nearly half (45%) of the total population.
- A majority (2) of the hospital falls under West Garo Hills District. It is found that North Garo Hills District does not have a single hospital as per the data is concerned. It is also found that South Garo Hills District appears to be the best served when the hospital population ratio is considered with the availability of one hospital for every 142574 population.
- It is found that the West Garo Hills District dominates (5) in terms of the availability of CHCs. It is also found that North Garo Hills District appears to be the best served when CHCs population ratio is taken into consideration among the five districts of the Garo Hills region.

- Among the five districts in the region, three districts, namely, West Garo Hills, North Garo Hills, and South West Garo Hills, each has 9 (22%) PHCs, followed by East Garo Hills 7 (18%) and South Garo Hills district 6 (16%), respectively. In terms of PHCs population ratio, North Garo Hills District appears to be the best served with the availability of one PHC for every 10757 population
- It is found that the West Garo Hills district has the maximum number (65) of Sub Centres in the region. Surprisingly, North Garo Hills District appears to be the best served when the Sub Centres' population ratio is considered.
- It is identified that among the five districts of the Garo Hills region, only three districts have dispensaries, West Garo Hills District with 3, followed by East and South Garo Hills, each with one dispensary availability, respectively. Surprisingly, both North and South West Garo Hills do not have a single dispensary. It is also found that South Garo Hills District appears to be the best served compared with other districts in terms of dispensaries' population ratio.

#### V. CONCLUSIONS:

From the findings of the study, the following conclusions emerge. Opening up of district hospital, particularly in North Garo Hills, is the need of the hour to enhance the population's health status. The Government of Meghalaya should also open up additional PHCs, CHCs, and Sub Centres to balance the ratio of healthcare facilities to the population. Since most people in the Garo Hills region belong to the rural areas, they often depend upon the rural health care facilities. 'Health for All' can only be attained if there are balanced and equitable health care facilities available for the people.

#### REFERENCES:

1. Census of India. (2011). Primary Census Abstract Total Table For India - 2011. In *Census of India*.
2. Home | Department of Health & Family Welfare, Government of Meghalaya. (n.d.). Retrieved March 13, 2021, from <http://meghealth.gov.in/index.html>
3. Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India (2012). *Indian Public Health Standards (IPHS) Guidelines for District Hospitals*.
4. World Health Organization. (1958). *The first ten years of the World Health Organization*. WHO, Geneva. <http://www.ecb.int/ecb/10ann/html/index.en.html>
5. Zusammenarbeit, D. G. F. I. (2012). *Compass Due North-East: Mapping the Regional Social Enterprise Landscape. Preliminary Assessment of the Social Enterprise Sector in the North Eastern Region of India, New Delhi*.