



A Geographical Study of the Pattern of Primary Health Care Center in Solapur District

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Abstract:

As per the Indian Health Policy, it is recommended to establish one primary health center for 20,000 population in hilly and tribal areas and 30,000 in plains. (Primary Health Center Manual, 2006). Just as human settlement can be seen in various forms such as centralized settlements, sub-central settlements, fragmented settlements and scattered settlements. Similarly, the pattern of health center distribution can also be seen. Nearest Neighbor Method (Nearest Neighbor Analysis) has been used to study the distribution pattern of Primary Health Care Center in Solapur district. The main objective of this research paper is to study the structure of primary health center in Solapur district. For this research, data from 2001 to 2021 has been selected. For this, primary and secondary information in the field of research has been taken as a basis.

Key Words: 1.Primary Health Health Center, 2. Observational distance 3. Expected distance 4. Format of Primary Health Care Center.

Introduction:

Agriculture, irrigation, transport, industry, health facilities etc. are developed according to the geographical location. The development of government health facilities depends on the location and population of the region. Therefore, the distribution of government health centers is not the same everywhere, but varies from region to region. Just as human settlement can be seen in various forms such as centralized settlements, sub-central settlements, fragmented settlements and scattered settlements. Similarly, the pattern of health center distribution can also be seen. Nearest Neighbor Method (Nearest Neighbor Analysis) has been used to study the distribution pattern of Primary Health Care Center in Solapur district. The development and use of this method by J.E. Clarke and Evans (1954) by geographers. Initially this method was used to model tree distribution and colony distribution. Over time, this approach began to be used in health geography. Accordingly, this method was used to model the distribution of health facilities. In the Nearest Neighbor method, the frequency is determined by considering the distance to the health center.

Formula:

Observed Mean Distance
RN =
Expected Mean Distance

$$RN = 0.5 \sqrt{\frac{A}{N}}$$

Objective:To study of the Pattern of primary health center in Solapur district.

Statistical data collection and research methods:

For the related research work, data from 2001 to 2021 has been selected. For this, primary and secondary information in the field of research has been collected. Statistical techniques like ratio, average etc. were used on the above primary and secondary data. Some formulas have been used for the above research.

Pattern of Primary Health Center:

Educational facilities, transportation facilities, communication facilities and health facilities in any region have a significant impact on the geographical location, economic, social factors and government planning of that region. Even in this, if the government plans properly, various government facilities are available to the public in abundance. Due to the differences in the geographical regions, the government sometimes has to provide the government services considering the geographical differences while providing various services. Due to territorial differences, there is a gap in the services available to the public from the government. Using the following formula, R.N. The value is extracted.

Disclosure:

RN = Randomness

A = Total Area of District

N = Total Number of Medical Centre

Based on this formula, the distribution pattern of primary health center in Solapur district has been studied.

R.N. Value of primary health center in Solapur district.:**R.N. value of primary health center in Solapur district.****(Year 2021)**

District	Year	Health Center	Number	Area	OD	ED	Rn	Pattern
Solapur	2021	PHC	92	14895	2.11	6.36	0.33	clustered
		PHSC	430		3.98	2.94	1.35	Random

Source : Based on official information by the researcher.

OD = observational distance in km. in

ED = Expected distance in km. in

Rn = Randomness

ATR = Approaching towards Random

By studying the above table, it is found that in the year 2021, the total number of primary health centers in the study area is 92 and its RN value is 0.33. From this value, it can be seen that the pattern of distribution of primary health centers in Solapur district is ATC (Approaching Towards clustered) centered. Similarly, if primary health sub-centres are considered in the year 2021, there are total 430 primary health sub-centres in Solapur district and its RN value is 1.35. From this value, it can be seen that the ATC (Approaching Towards clustered) pattern of distribution of primary health centers in Solapur district is irregular.

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