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LOCATION AND PLANNING OF HEALTH CARE DELIVERY  
SYSTEM AT THE DISTRICT LEVEL



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**Short Profile**

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**ABSTRACT:**

There is a wide variety of health systems around the world, with as many histories and organizational structures as there are nations. In some countries, health system planning is distributed among market participants. In others, there is a concerted effort among governments, trade unions, charities, religious, or other co-ordinate bodies to deliver planned health care services targeted to the populations they serve. However, health care planning has been described as often evolutionary rather than revolutionary.

According to the World Health Organization, health care systems' goals are good health for the citizens, responsiveness to the expectations of the population, and fair means of funding operations. Progress towards them depends on how systems carry out four vital functions: Provision of health care services, resource generation, financing, and stewardship. Other dimensions for the evaluation of health systems include quality, efficiency, acceptability, and equity. The solapur district also continuity of health care is a major goal. The planning of health care services is assuming increasing importance in solapur due to the economic and social significance of tackling the problems of human health. In the existing services at the micro level. A comprehensive study of the adequacy of health care services would involve extensive field investigations which would be both time consuming and expensive. Hence an alternative approach to assess the situation by the use of secondary data, needs to be adopted. The present paper has therefore attempted to analyze the adequacy of the existing health

care facilities in the rural areas of one district in Maharashtra, namely Solapur as a test case.

### KEYWORDS

*Food, Public, People, Health.*

### INTRODUCTION :

A health system, also sometimes referred to as health care system or healthcare system is the organization of people, institutions, and resources to deliver health care services to meet the health needs of target populations. The planning of health care and welfare services is assuming increasing importance due to the social and economic significance of tackling the problems of human health. However, the spatial aspect of this planning is still a neglected segment of our Indian plans. This fact has been emphasized in most studies related to health care distribution in Solapur. According to World Health Organization "A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities. A health system is therefore more than the pyramid of publicly owned facilities that deliver personal health services. It includes, for example, a mother caring for a sick child at home; private providers; behavior change programmers; vector-control campaigns; health insurance organizations; occupational health and safety legislation. It includes inter-sectoral action by health staff, for example, encouraging the ministry of education to promote female education, a well known determinant of better health. In order to make our health care services more effective, it is necessary to assess the adequacy of the existing services at the micro level.

In order to make our health care services more effective it is necessary to assess the adequacy of the existing services at the micro level. This adequacy can be measured in terms of a) The specific types of services required by various groups of people and in different areas b) The number of services available in relation to the number of persons to be served and c) The accessibility of the services which is an effect of the geographical location as well as the cost of the available facility. A comprehensive study of the adequacy of health care services would thus involve extensive, time consuming and expensive field investigations.

The World Health Organization defines health system as follows, "A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities. A health system is therefore more than the pyramid of publicly owned facilities that deliver personal health services. It includes, for example, a mother caring for a sick child at home; private providers; behavior change programmers; vector-control campaigns; health insurance organizations; occupational health and safety legislation. It includes inter-sectoral action by health staff, for example, encouraging the ministry of education to promote female education, a well known determinant of better health." Geography particularly through the concept of Central Place Theory. Such studies have been actually applied in health service planning.

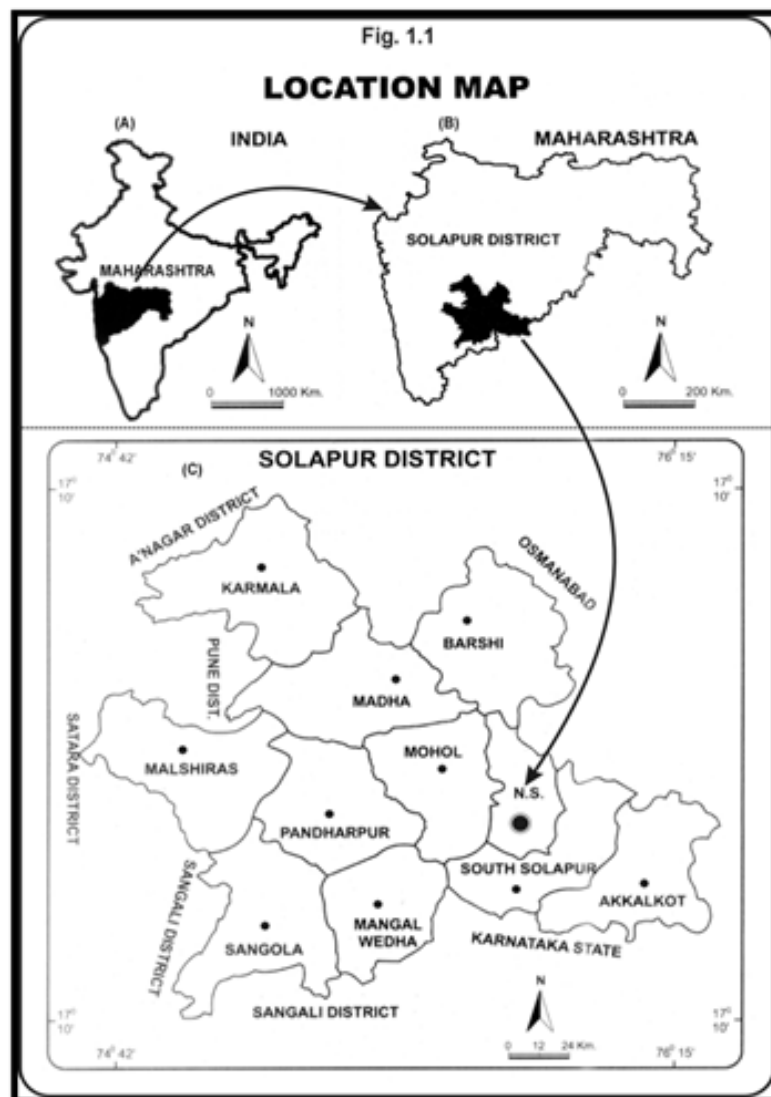
### OBJECTIVES: -

1) To study the Tahsil wise distribution of health care facilities in Solapur District.

- 2) To study the ratio between population and No. of Primary Health Care Centers.
- 3) To study vital role of the Primary Health Care Centers.
- 4) To study the spatial distribution of health care facilities in the district of solapur.

#### STUDY REGION :-

The district of solapur is one of the most important districts of the Maharashtra state both in terms of area and population. It lies, entirely in the Bhima basin and located in between, 17010' North to 18032' latitudes and 74042' East to 76015' East longitudes. The total geographical area of the solapur district is 14895 square kilometers with a population of 4317756 according to 2011 census. The area under study constitutes 4.88% area and 4.51% population of Maharashtra state. The district entirely lies in drought prone area of Maharashtra state. The region is divided into four seasons of cold, hot, monsoon and post monsoon. The yearly temperature ranges between 100 to 440 C. The annual average rainfall is 667.10mm.



**DATA BASE & METHODOLOGY :-**

The present study is based on the primary and secondary sources. The secondary data was collected from various offices like district health office, Municipal Corporation office, district census report and statistical department of Solapur district. The primary data have been collected from field survey and the data has been processed and presented with help of cartographic technique and analyzed accordingly.

**DISTRIBUTION OF HEALTH CARE SERVICES IN SOLAPUR DISTRICT:**

Solapur district is situated in the south part of Maharashtra and has an area of approximately 14845 Sq.km. total population of the district is 4,317,756 (2011) comprises the rural population. For administrative purposes, the district is divided into 11 talukas encompassing 1167 villages.

The distribution of health care facilities in the district (excluding the urban area) reveals a rather unbalanced pattern (Table No. 1) the number of services available in each taluka the percentage of village with facilities the area covered by the facilities the population served by these facilities, show considerable variations between the talukas. In each case north solapur taluka ranks the highest and Mangalwedha occupies the lowest position. The superior situation in north solapur taluka may be due to the proximity and consequent influence of the urban area of Solapur.

The degree of concentration of health care services in the talukas, studied with the help of the location quotient, reveals a distinctive pattern. The location quotient was worked out by the following formula :

$$\text{Location Quotient} = \frac{\frac{\text{Population of villages with facilities in the taluka as per centage of population of village with facilities in the district}}{\text{Total rural Population of taluka as percentage of total rural population of district}}}{\text{Total rural Population of taluka as percentage of total rural population of district}}$$

The results obtained were as follows

Sr.No	Taluka	% of location Quotient
1	N. Solapur	24.96
2	Malshiras	10.98
3	Pandharpur	10.46
4	Barshi	8.85
5	Madha	7.6
6	Akkalkot	7.47
7	Sangola	7.07
8	Mohol	6.56
9	Karmala	6.06
10	S. Solapur	5.48
11	Mangalwedha	4.51

It is apparent the first four talukas mentioned above, have a greater concentration medical services, while the remaining seven talukas are less well served. The high location quotient of north solapur taluka is notable.

The overall picture regarding availability of health care facilities shows that talukas adjacent to solapur, enjoy a better position. The district may thus be divided longitudinally into two halves, with the western half, including the talukas of North solapur, Malshira, pandharpur and Barshi showing better development of medical facilities, while the remaining seven talukas further east, which are predominantly undeveloped area show lesser development.

#### HIGH RATIO BETWEEN POPULATION AND NO. PRIMARY HEALTH CARE CENTERS

Sr.No	Talukas	Total Rural Population	No of primary health care centers	Ratio between Population and Primary Health care centers
1	Karmala	231290	190	1217.3
2	Madha	301564	191	1578.9
3	Barshi	253989	162	1567.8
4	Solapur North	105794	65	1627.6
5	Mohol	231290	118	1960.1
6	Pandharpur	343445	124	2769.7
7	Malshiras	421244	150	2808.3
8	Sangole	288524	146	1976.2
9	Mangalvedhe	184108	117	1573.6
10	Solapur South	260897	127	2054.3
11	Akkalkot	250890	171	1467.2

According to the above table the high concentration of Primary health care centers are mainly observed in the karmala taluka it is 190 PHC its ratio is 1: 1217 . Akkalkot also observed high concentration of PHC its ratio is 1:1467 followed by Madha ,mangalvedha and barshi because of high concentration of rural and medium class population as well as in the suburb the low standard of people are serving. It is good symbol as the no. of primary health care centers are more comparing to population

Therefore the no. of Primary health care centers is low as per the population hence there is low ratio of primary health care centers compared to the inhabitant which is about 1: 2808 . In the Malshiras tahashil ,the ratio between population and no. of primary health care centers is about 1: 2769 in Pandharpur .. In this tahashils most of the low and medium class profile population facilitated of Primary health care centers with large amenities

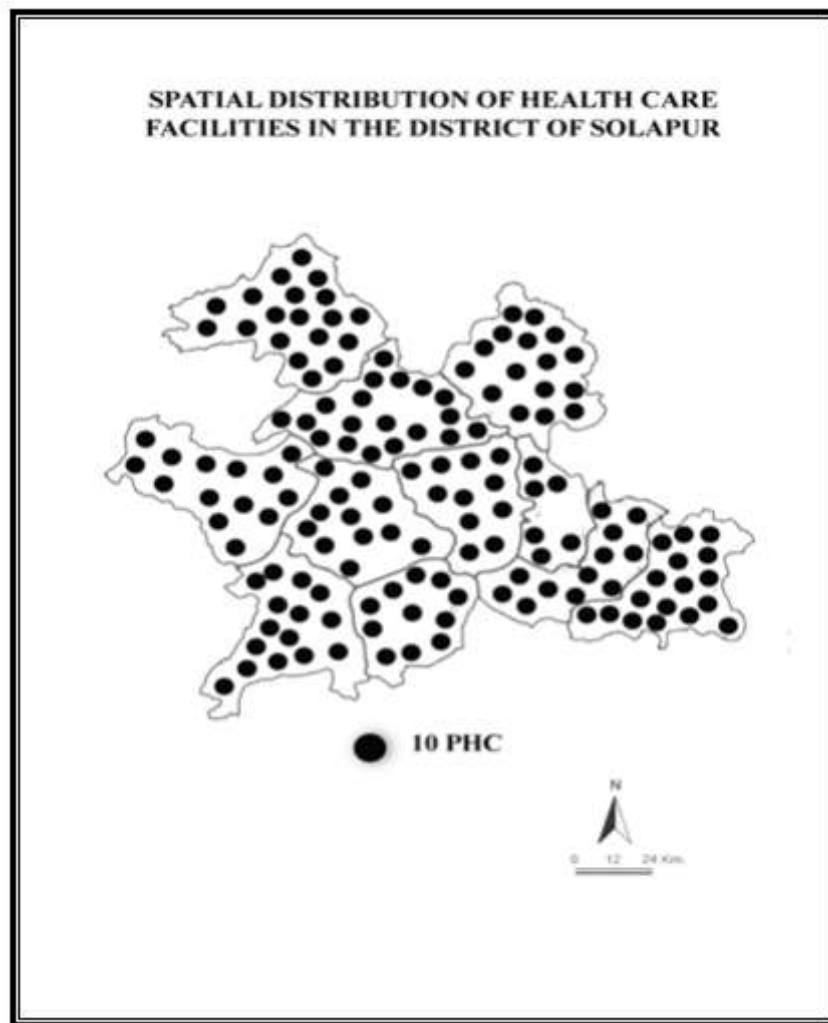
### ROLE OF THE PRIMARY HEALTH CARE CENTERS:-

There were 1561 primary health care centers in solapur district in 2011. Out of the eleven talukas,

- Health systems should not be expressed in terms of their components only, but also of their interrelationships;
- Health systems should include not only the institutional or supply side of the health system, but also the population;
- Health systems must be seen in terms of their goals, which include not only health improvement, but also equity, responsiveness to legitimate expectations, respect of dignity, and fair financing, among others;
- Health systems must also be defined in terms of their functions, including the direct provision of services, whether they are medical or public health services, but also "other enabling functions, such as stewardship, financing, and resource generation, including what is probably the most complex of all challenges, the health workforce."
- Health care providers are institutions or individuals providing health care services. Individuals including health professionals and allied health professions can be self-employed or working as an employee in a hospital, clinic or other health care institution, whether government operated, private for-profit, or private not-for-profit (e.g. non-governmental organization). They may also work outside of direct patient care such as in a government health department or other agency, medical laboratory or health training institution. Examples of health workers are doctors, nurses, midwives, dietitians, paramedics, dentists, medical laboratory laboratory technologists, therapists, psychologists, pharmacists, chiropractors, community health workers, traditional medicine practitioners, and others.

### SPATIAL DISTRIBUTION OF HEALTH CARE FACILITIES IN THE DISTRICT OF SOLAPUR:-

According to the above discussion there is lack of PHC facilities in solapur district as compare to the other district as like pune and nashik as well as ahamednagar . because of randomly distribution of rural population. There is need of increase the primary health care facilities at village level.



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