CHAPTER - IV

HEALTH CARE FACILITIES IN KOLHAPUR DISTRICT (RURAL AREA) 4.1 Introduction 4.2 Existing pattern of health services 4.3 Proposed plan for localization of Public Health Centres 4.4 The proposed model for localization of New Public Health Centres 4.5 Conclusion

Reference

4.1 Introduction :

The study of modern medical geography also deals with the localization of medical services apart from the study of distribution of diseases, which was the focal theme of traditional Medical Geography.

The health services may be analysed in terms of the community for which they serve and health concern they deal with. These services are the integral part of a particular health system and represent responses to health concern and to the health needs. But it has been found out that health services are not examined by relating them to the community . to which they serve and hence unequal distribution of medical facilities are observed in any region (Pandurkar, 1981).

The major work in health planning is to determine the relation between the incidence of diseases and location of facilities. While considering this major aim of health planning, the researcher has attempted to analysed the existing health care system in the rural areas of Kolhapur district. Taking into consideration the volume of population and the area in which this population is distributed, the new model for localization of the P.H.Cs is suggested.

4.2 Existing pattern of health services :

It is true that in the rural areas, besides the primary health centres (under the Zilla Parishad Administration) the private dispensaries are also located. As the main aim behind establishment of P.H.Cs is to provide the medical aids to the rural people, it is assumed that entire rural population of that tahsil is served by the P.H.C. (excluding health care extended by private doctors). Here the researcher has assumed that whole rural population is under the treatment of P.H.C. and the doctors attached to it.

From the Table 4.1, it reveals that during 1961, fifteen P.H.Cs were serving to a population of 1.29 million, it means that one P.H.C. was serving to a population of 85,911 while during last 20 years, no new P.H.C. was added due to which P.H.C. population ratio has gone upto 1:135,593. This population ratio is still more at the tahsil level viz. during 1981 in Karvir tahsil, one P.H.C. was serving to 254,569 population, it means that the criteria of population served by each P.H.C. is not fixed as it varies from P.H.C. to P.H.C. Because of higher increase in population during 1985, the state government has suggested total 65 P.H.Cs in this district to serve a population of 2,022,560. The P.H.C. population ratio comes to 1:31,116. The list of existing and proposed P.H.Cs at

The second second data data and second second



Sr.No.	Tahsil	Sr.No.	Public Health Centre				
1	2	3	4				
1)	Shahuwadi	1.	Bhedasgaon	(Existing)			
		2.	Manjare				
		3.	Man				
		4.	Sarud				
		5.	Paraleninai				
2)	Panhala	6.	Kale	(Existing)			
		7.	Kotoli				
		8.	Pokhale				
		9.	Padal				
		10.	Borapadale				
		11.	Bajarbhogaon				
3)	Hatkanag le	12.	Pargaon	(Existing)			
		13.	Pattan _k odoli	-do-			
		14.	Herle	-do-			
		15.	Savarde				
		16.	Hupari				
		17.	Sajani				
		18.	Bhadole				
		19.	Shiroli				
		20.	Hatkanagle				
4)	Karvir	21.	Mudshingi	(Existing)			
		22.	Ispurli				
		23.	Shiroli Duma	la			
		24.	Kaneri				
		25.	Khupire				
		26.	Bhuye				
		27.	Hasur				
		28.	Sangrul				

Table 4.1 : Proposed P.H.C's by Health Department, 1985 (Refer Map No.4.1).

. ,

Cont..

.

1	2	3	4
5)	Shirol	29.	Dattawad (Existing)
		30.	Nandani
		31.	Danoli
		32.	Shiral
		33	Jaysingpur
		34.	Lat
6)	Kagal	35.	Pimpalgaon Bk. Fristing
- /		36.	Kapashi
		37.	Chikhali
		38.	Sangaon Kasba
		39.	Sidhanerli
7)	Radhanagri	40.	Rashiwade (Existing)
		41.	Solankur -do-
		42.	Radhanagri
		43.	Tarale Kasba
		44.	Dhamod
		45.	Walave
8)	Bhudargad	46.	Kadgaon (Existing)
		47.	Minache Kh.
		48.	Madilge Bk.
		49.	Patagaon
9)	Ajara	50.	Uttur (Existing)
		51.	Ajara
		52.	Maligre
10)	Gadhinglaj	53.	Nesari (Existing)
		54.	Halkarni
		55.	Noolkasaba
		56.	Mahagaon
		57.	Kadgaon
11)	Chandgad	58.	Kowad (Existing)
		59.	Chandgad
		60.	Here
		61.	Mangaon
		62.	Tudiya
		63.	Adkur
12)	Gaganbavada	64.	Bavda
		65.	Nivade

-

the end of 1985 is shown in Fig.4.1 and Table 4.1. After establishment of these new P.H.Cs the ratio will be as low as 1:24,409 (in Chandgad tahsil) and as high as 1:37,395 (in Shirol tahsil).

At present each P.H.C. is controlled by minimum two M.B.B.S. doctors and maximum three doctors. Now the district rural doctor population ratio is 1:45,967. It is as high as 1:73,229 in Chandgad tahsil and as low as 1:28,141 as in Radhanagri tahsil (Actually the doctor population ratio of Karvir tahsil is highest amongst all i.e. 1:93,192. But it is excluded as major urban centre i.e. Kolhapur city is located very near to rural area). Each P.H.C. is served by on an average five nurses and mid wives and other medical assistants (including compounders, health inspectors, sanitary inspectors and Lab technicians).

For studying the day to day administration and work conducted at each P.H.C., the researcher has conducted the interviews with the incharge doctor of each P.H.C. with the help of questionnaire as shown in Appendix 'C'. The findings of these interviews are listed below. At present 44 doctors are serving at different P.H.Cs located in this district; hence doctor population ratio is 1:45,967 which is far above the state average. It is true that due to this high pressure of

population on each doctor, they could not give the full justice to the patients who are suffering by different diseases. It has been found out that generally 50 to 70 patients visit the P.H.C. every day. These P.H.Cs are also not well equipped as only 177 beds are available in these P.H.Cs. The bed population ratio is 1:11,426 which is far above the state rural average which is 1:4,400 (Bhore committee recommended average is 1:1,000). This bed population ratio is found to be unequal and as high as 1:33,575 in Kagal tahsil and as low as 1:8,826 in Hatkanagle tahsil. For bringing this rate upto the state average, at least three times the existing beds should be increased (At least 350 beds may be newly added in this P.H.Cs). It is interesting to note that eventhough the P.H.C. is established for the services of whole rural population residing in that tahsil, more than 60% patients visiting the P.H.Cs daily, are from the same village where that P.H.C. is established, while only 20 to 30 percentage patients are coming from the nearby villages within a radius of 10 to 15 kms. It indicates that majority of the population at that tahsil is not benifitted by the treatment given at that P.H.C. This problem may be solved by adding new P.H.Cs in this district. The majority of the P.H.Cs are not well facilited by special medical equipments. Only one microscope for examining the blood, sputum and refrigerator are supplied to each P.H.C. But no other specialized equipments are supplied to the P.H.C.

The existing P.H.Cs face some of the problems which are listed below :-

- The existing buildings of P.H.Cs are insufficent and staff quarters are not available to some of the P.H.Cs.
- 2) Separate building for each sub-centre is required.
- The vehicle facility should be provided to each field officer.
- 4) Because of unideal location of existing P.H.C., no proper communication is established in between patients and P.H.C. The mode of transportation may be improved, so as to increase the frequency of the patients visiting the P.H.C.

4.3 Proposed plan for localization of P.H.Cs. :

During 1961, the rural population of the district was 1,288,688 and number of P.H.Cs were only 15. It means that the P.H.C. population ratio was 1:85,911. Except Hatkanagle and Radhanagri tahsil in other tahsils only one P.H.C. was serving to the whole of the tahsil's rural population. During this year on and average 529 sq.kms. area was served by each P.H.C. (Table 4.2). In Shahuwadi tahsil only one P.H.C. was serving to the area of 1,041 sq.km. which was highest in this district. The average area served by each P.H.C. in this distric was 529 sq.kms. i.e. a square of 23 kms. in length and 23 kms. --

	each 198	Р.Н.С. 35	Suggested P.H.C.	<u>Surplus</u> Deficit	Rural area served by each P.H.C.				
Tans.	.of .H.C.	Ratio	begin of 1986	P.H.C. in 1986	1961	1985			
Shah	5	27,558	14	+ 9	1041	208			
Panh	,6 ;	29,898	11	+ 5	566	94			
Hatk	9	29,420	6	- 3	188	63			
Karv	8	35,947	11	+ 3	603	75			
Shir	6	37,395	5	- 1	480	80			
Kaga	5	33,575	9	+ 4	506	101			
Radł	6	28,141	11	+ 5	446	148			
Bhud	4	29,042	11	+ 7	644	161			
Ajra	3	33,185	9	+ 6	548	182			
Gadl	5	32,924	10	+ 5	472	94			
Chai	r ⁶	24,409	14	+ 8	965	161			
Gag	2	37 , 196	9	+ 7	698	349			
D	• • 5 '	31,116	120	+55	529	121			

<u>S</u>

width. Because of this large serving area, the state government has suggested totaly 65 P.H.Cs (tahsilwise list is shown in Table 4.1 and in Fig.4.1). These new P.H.Cs will be started by the end of 1985 when each P.H.C. will serve to a population of 31,116 and will cover the area of 121 sq.kms. i.e. a square of 11 kms. in length and 11 kms. in width. By this arrangement, a patient has to travel a minimum distance of 6 kms. and maximum of 8 kms. (Fig.4.2) (for the sake of convenience, the ideal shape of each village is considered by the author in the square form by ignoring the physical barriers and assuming that means of communications are available in the directions shown in map). After establishments of these P.H.Cs, the patient may walk this distant or may travel by S.T. Eventhough the population of 31,116 per P.H.C. seems to be smaller it resides in the area of 121 sc.kms. which is bigger one because of which doctors appointed at each P.H.C. may not be in a position to give the best services to their patients who are located in remote areas.

4.4 The proposed model for localization of new P.H.Cs :

With considering the projected population of 1986, the researcher feels that there should be one P.H.C. for every 16,800 rural population. Taking into consideration the present average size of population i.e. 1967 of each village, there should be one P.H.C. for every nine villages. At present, totaly

128



FIG. 4.2

there are 1,083 villages located in Kolhapur district. It means that there should be 120 total P.H.Cs to be established in this district. Considering 65 P.H.Cs which will be established in 1985, new 55 P.H.Cs should be started in this district. The total P.H.Cs needed in each tahsil interm of number of villages and population is listed in Table 4.3. By adding 55 P.H.Cs more in this district (average size of each village is considered to be nine sq,kms. i.e. 3 kms. X 3 kms.), every nine villages will be served by each P.H.C. (area to be served by these nine villages is shown in the Map 4.2). By this arrangement, every 36 sq.kms. area will be served by each P.H.C. Previously each P.H.C. was serving the area of 121 sq.kms. when there were 65 P.H.Cs, while now by adding only 55 P.H.Cs more (less than double) each P.H.C. will serve the area which will be roughly one fourth of the previous one. By this localisation plan patient has to travel the distance of minimum 3 kms. and maximum of 4.5 kms., which can easily be travelled either by walk within half an hour or by spending less than 75 paise as the S.T.charges. By this arrangement, 3 medical officers have to work for the area of 36 sq.kms. and they have to visit the patients by travelling minimum distance of 3 kms. and maximum of 4.5 kms. The people residing on the boundary of the area of two P.H.Cs have to select any one of them as per their convinience. For these new establishments, Government has to spend hardly double the amount which they

	÷i (2													1	
	Defici	ntđine	6 +	აი +	ო 1	ო. +	 	+	ں +	+ 7	0 +	2 +	00 +	+ 7	+55	
	No. of suggested P.H.Cs by the researcher	(one tor 16, g 00) population	14	11	Q	11	£	6	11	11	6	10	14	σ	120	
1	Number of proposed P.H.Cs by Govt.at	the end of 1985	IJ	Q	თ	œ	Q	ũ	Q	4	ſſ	ß	Q	N	65	
	ig ₽.H.Cs	1981	7	Ч	m	-1	-	-	7	Ч	Ч	-	Ч	liN	14	
	of Existin	1971		Ч	m	N	Ч		5	Ч	Ļ	Ч	-1	Ļ	16	author.
	Number C	1961	-1	Ч	m	Ч	-	г н	5	н,	1	Ч	Ч	,	15	iled by a
	Tahsil		Shahuwadi	Panhala	Hatkanagle	Karvir	Shirol	Kagal	Radhanagri	Bhudargad	Ajra	Gadhinglaj	Chandgad	Gaganbavada	District Total	Source : Comp.
	Sr. No.		•	3 •	°.	4.	ۍ •	•	7.	ά	• •	10.	11.	12.		

Table 4.3 : Number of existing and suggested public health centres.

are spending at present. It is true that in the western hilly region especially in the western part of Shahuwadi,Gaganbavada, Radhanagri and Bhudargad tahsils, the villages are located far away from each other and villagers have to travel slightly more distance than what is suggested. But the percentage of population residing in these hilly areas is comparatively very meager, hence the inconvenience will be for this trifling population.

At present, the hierarchy of arrangement of the health services is not upto the mark. All the P.H.Cs are now under the direct control of District Health Officer (D.H.O.) whose office is located at a place of district head quarter, which remains far away from the remote areas. Hence in between the P.H.C. and the D.H.O., there should be another linking health concern. At present, for some of the groups of villages, the rural hospitals have been started on experimental basis. It feels that for every 81 villages (i.e. for 9 P.H.Cs), there should be one well equipped rural hospital which will serve to the area of some 600 sq.kms. and for every 150,000 rural population. In this proportion, 13 new rural hospitals may be started in this district. There will be roughly one rural hospital for each tahsil and these 13 rural hospitals will be under the direct control of district health officer (D.H.O.). This arrangement may solve some of the present problems related to health care of the villagers residing in Kolhapur district.

4.5 Conclusion :

The health service needs to be analysed in term of community for which it serves and the number of population which utilises that service. The needs and demands of the people are also to be considered. On this background it feels that the existing rural medical services of Kolhapur district are insufficent and are inadequatly located. During 1961, one P.H.C. was serving to a population of 86,000 while this ratio has reached upto 1:135,000 during 1981. Due to this, state government has suggested total 65 P.H.Cs due to which one P.H.C. will serve to a population of 31,000 and for the area of 121 sq.kms. By this arrangement patients have to travel a maximum distance of 8 kms. which is rather more for a person whose income is less than Rs.300/per month and more than 7 persons as the family members. To minimise this time and distance factor, the researcher has suggested totaly 120 P.H.Cs, due to which each P.H.C. will serve for a population of 16,800 (one P.H.C. for every 9 villages) and for 36 sg.kms. area. By this, the patient has to travel a maximum distance of 4.5 kms., which will also enable the doctors incharge of the P.H.Cs to visit places under his control frequently. At present, in this district there is no linking medical facility in between P.H.C. and



and district health unit. The researcher has suggested that for every 81 villages (for covering the area of 600 sq.kms. and for 150,000 population) there should be one rural hospital.

This arrangement may solve some of the present problems related to health care of the villages of Kolhapur district.

REFERENCE

.

 Pandurkar, R.G. (1981) : Spatial Distribution of Some Diseases in Maharashtra. A Study in Medical Geography. Unpublished Ph.D.Thesis, p.266.